

State of California
The Resources Agency

DEPARTMENT OF WATER RESOURCES
Division of Operations and Maintenance

STATE WATER PROJECT OPERATIONS DATA

For the month of:
July 2002

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Governor
State of California

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Secretary for Resources
The Resources Agency

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Director
Department of Water Resource

State of California
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The Resources Agency
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The organization shown above represents staff and positions relevant to this report as of publication date on December 4, 2002. It is the department's policy to not show staff in "Acting" or "Temporary" positions.

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MONTHLY HIGHLIGHTS

The following highlights are activities or actions that impacted State Water Project operations during the month of July 2002.

Statewide precipitation was 75 percent of average for the 2001-2002 water year as of July 31. Statewide runoff was 45 percent of average for the water year. Precipitation percentages are used in this report to express historical and regional comparisons. Additional and more specific information is available via the Internet at: "http://cdec.water.ca.gov/snow_rain.html".

On July 31, total storage in major SWP reservoirs was about 3.0 MAF, compared to 2.90 MAF at this time in 2001. The average storage in the major SWP reservoirs at the end of July is about 3.76 MAF. The July 31 storage at Lake Oroville was about 1.93 MAF as compared to 1.73 MAF last year. Precipitation in the Feather River Basin was much lower than average. The State's share of San Luis Reservoir storage was about 401 TAF, as compared with 549 TAF at this time last year. On July 31, the combined storage in our southern reservoirs was about 669 TAF, compared with about 618 TAF at this time last year.

Through July, SWP water deliveries for 2002 were about 1.70 MAF. This is a combination of project, transfer, and exchange waters. This is 507 TAF less than delivered during the same period in 2001.

Various flow changes and intake modifications to Hyatt were utilized to manage water temperatures at Robinson Riffle and the fish hatchery.

Net Delta Outflow Index requirements controlled SWP operations in the Delta.

There were some concerns over water levels in the South Delta, especially at Tom Paine Slough. Problems were mitigated by the use of portable pumps.

DWR, on behalf of the Environmental Water Account and Dry Year Programs, purchased 157,050 AF of water from Yuba County Water Agency; and of that, 135,000 AF were for the EWA, and 22,050 AF were for the Dry Year. In July, the SWP exported 43,824 AF of water for the CVP as partial payment for the export curtailments taken at the CVP facilities in May and June 2002. The CVP provided the power for this action.

Table 1. Antelope Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 22,566 ac-ft

July 2002

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs						Computed Inflow 1/
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/	Total Outflow 1/	
				Stream-flow Maint.	Water Supply Contract	Water Right				
Jun 30	5000.97	21,620								
1	5000.94	21,593	-27	20	0	0	0			
2	5000.86	21,521	-72	20	0	0	0			
3	5000.78	21,448	-73	20	0	0	0			
4	5000.71	21,385	-63	20	0	0	0			
5	5000.65	21,332	-53	20	0	0	0			
6	5000.57	21,260	-72	20	0	0	0			
7	5000.50	21,197	-63	20	0	0	0			
8	5000.43	21,135	-62	20	0	0	0			
9	5000.37	21,072	-63	20	0	0	0			
10	5000.30	21,019	-53	20	0	0	0			
11	5000.25	20,974	-45	20	0	0	0			
12	5000.17	20,903	-71	20	0	0	0			
13	5000.11	20,850	-53	20	0	0	0			
14	5000.04	20,788	-62	20	0	0	0			
15	4999.97	20,718	-70	20	0	0	0			
16	4999.89	20,647	-71	20	0	0	0			
17	4999.82	20,585	-62	20	0	0	0			
18	4999.76	20,532	-53	20	0	0	0			
19	4999.70	20,479	-53	20	0	0	0			
20	4999.64	20,427	-52	20	0	0	0			
21	4999.57	20,365	-62	20	0	0	0			
22	4999.52	20,321	-44	20	0	0	0			
23	4999.43	20,242	-79	20	0	0	0			
24	4999.36	20,181	-61	20	0	0	0			
25	4999.29	20,120	-61	20	0	0	0			
26	4999.24	20,077	-43	20	0	0	0			
27	4999.17	20,016	-61	20	0	0	0			
28	4999.08	19,938	-78	20	0	0	0			
29	4999.02	19,886	-52	20	0	0	0			
30	4998.95	19,825	-61	20	0	0	0			
31	4998.89	19,773	-52	20	0	0	0			
Total cfs-days			---	620	0	0	0	367	987	55
Total ac-ft			-1,847	1,230	0	0	0	727	1,957	110

1/ Values not available on a daily basis.

Table 2. Frenchman Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 55,477 ac-ft

July 2002

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow 1/	
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/		Total Outflow 1/
				Stream-flow Maint.	Water Supply Contract	Water Right				
Jun 30	5567.47	28,654								
1	5567.43	28,611	-43	0	24	0	0			
2	5567.35	28,528	-83	0	24	0	0			
3	5567.32	28,497	-31	0	25	0	0			
4	5567.24	28,435	-62	0	26	0	0			
5	5567.19	28,362	-73	0	26	0	0			
6	5567.10	28,269	-93	0	26	0	0			
7	5567.02	28,187	-82	0	26	0	0			
8	5566.92	28,084	-103	0	29	0	0			
9	5566.82	27,981	-103	0	31	0	0			
10	5566.74	27,899	-82	0	31	0	0			
11	5566.66	27,817	-82	0	31	0	0			
12	5566.58	27,735	-82	0	31	0	0			
13	5566.50	27,653	-82	0	31	0	0			
14	5566.41	27,561	-92	0	31	0	0			
15	5566.30	27,429	-132	0	44	0	0			
16	5566.17	27,318	-111	0	50	0	0			
17	5566.11	27,257	-61	0	38	0	0			
18	5566.05	27,196	-61	0	29	0	0			
19	5565.94	27,085	-111	0	28	0	0			
20	5565.87	27,014	-71	0	28	0	0			
21	5565.83	26,974	-40	0	28	0	0			
22	5565.75	26,894	-80	0	28	0	0			
23	5565.68	26,823	-71	0	26	0	0			
24	5565.63	26,773	-50	0	18	0	0			
25	5565.55	26,693	-80	0	15	0	0			
26	5565.52	26,663	-30	0	18	0	0			
27	5565.46	26,603	-60	0	20	0	0			
28	5565.37	26,514	-89	0	20	0	0			
29	5565.32	26,464	-50	0	25	0	0			
30	5565.21	26,354	-110	0	26	0	0			
31	5565.14	26,285	-69	0	25	0	0			
Total cfs-days			- - -	0	858	0	0	368	1,226	31
Total ac-ft			-2,369	0	1,702	0	0	729	2,431	62

1/ Values not available on a daily basis.

Table 3. Lake Davis

Daily Operation

(in acre-feet except as noted)

Capacity: 84,371 ac-ft

July 2002

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow 1/	
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/		Total Outflow 1/
				Stream-flow Maint.	Water Supply Contract	Water Right				
Jun 30	5764.94	49,107								
1	5764.89	48,958	-149	5	0	5	0			
2	5764.87	48,899	-59	5	0	5	0			
3	5764.83	48,780	-119	5	0	5	0			
4	5764.79	48,662	-118	5	0	5	0			
5	5764.76	48,573	-89	5	0	4	0			
6	5764.73	48,484	-89	6	0	5	0			
7	5764.70	48,395	-89	6	0	4	0			
8	5764.68	48,336	-59	6	0	4	0			
9	5764.65	48,248	-88	6	0	4	0			
10	5764.64	48,218	-30	6	0	4	0			
11	5764.62	48,159	-59	6	0	4	0			
12	5764.60	48,100	-59	6	0	4	0			
13	5764.58	48,042	-58	10	0	0	0			
14	5764.54	47,924	-118	10	0	0	0			
15	5764.50	47,807	-117	10	0	0	0			
16	5764.46	47,689	-118	10	0	0	0			
17	5764.41	47,543	-146	10	0	0	0			
18	5764.41	47,543	0	6	0	3	0			
19	5764.40	47,514	-29	5	0	5	0			
20	5764.39	47,485	-29	5	0	5	0			
21	5764.37	47,426	-59	5	0	5	0			
22	5764.34	47,339	-87	5	0	5	0			
23	5764.30	47,222	-117	5	0	5	0			
24	5764.26	47,106	-116	5	0	5	0			
25	5764.22	46,990	-116	5	0	5	0			
26	5764.20	46,932	-58	5	0	5	0			
27	5764.18	46,874	-58	5	0	5	0			
28	5764.16	46,816	-58	5	0	5	0			
29	5764.13	46,729	-87	5	0	5	0			
30	5764.11	46,671	-58	2	0	5	0			
31	5764.08	46,584	-87	6	0	3	0			
Total cfs-days			---	186	0	121	0	991	1,297	25
Total ac-ft			-2,523	369	0	239	0	1,965	2,573	50

1/ Values not available on a daily basis.

Table 4. Lake Oroville

Daily Operation

(in acre-feet except as noted)

Capacity: 3,537, 580 ac-ft

July 2002

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow					Inflow	
				Hyatt Powerplant Generation 1/	Palermo Canal	Evaporation 2/	Spill	Total Outflow	Hyatt Powerplant Pumpback	Computed Inflow 3/
Jun 30	814.00	2,353,690								
1	812.76	2,339,020	-14,670	17,312	30	353	0	17,695	0	3,025
2	811.29	2,321,711	-17,309	18,975	32	365	0	19,372	0	2,063
3	809.96	2,306,128	-15,583	16,962	32	342	0	17,336	0	1,753
4	808.62	2,290,502	-15,626	17,037	32	256	0	17,325	0	1,699
5	807.14	2,273,329	-17,173	18,434	32	275	0	18,741	0	1,568
6	805.65	2,256,130	-17,199	19,183	32	309	0	19,524	0	2,325
7	804.14	2,238,794	-17,336	19,464	32	279	0	19,775	0	2,439
8	802.72	2,222,576	-16,218	19,459	32	292	0	19,783	0	3,565
9	801.23	2,205,648	-16,928	20,679	32	331	0	21,042	0	4,114
10	799.79	2,189,374	-16,274	19,779	32	413	0	20,224	0	3,950
11	798.37	2,173,408	-15,966	19,244	32	389	0	19,665	0	3,699
12	796.72	2,154,961	-18,447	21,982	31	347	0	22,360	0	3,913
13	795.83	2,145,056	-9,905	12,726	32	330	0	13,088	0	3,183
14	794.93	2,135,073	-9,983	12,379	31	330	0	12,740	0	2,757
15	793.39	2,118,066	-17,007	19,303	31	282	0	19,616	0	2,609
16	791.79	2,100,500	-17,566	20,772	31	261	0	21,064	0	3,498
17	789.93	2,080,209	-20,291	21,042	32	232	0	21,306	0	1,015
18	788.40	2,063,623	-16,586	18,798	32	251	0	19,081	0	2,495
19	786.96	2,048,099	-15,524	17,830	32	197	0	18,059	0	2,535
20	785.85	2,036,189	-11,910	13,864	32	268	0	14,164	0	2,254
21	784.96	2,026,676	-9,513	11,165	31	286	0	11,482	0	1,969
22	783.66	2,012,837	-13,839	15,904	31	214	0	16,149	0	2,310
23	782.16	1,996,954	-15,883	18,078	31	225	0	18,334	0	2,451
24	780.68	1,981,371	-15,583	17,991	31	218	0	18,240	0	2,657
25	779.28	1,966,712	-14,659	18,860	32	248	0	19,140	0	4,481
26	777.57	1,948,912	-17,800	19,656	31	259	0	19,946	0	2,146
27	776.25	1,935,252	-13,660	15,979	31	245	0	16,255	0	2,595
28	775.35	1,925,978	-9,274	10,731	32	226	0	10,989	0	1,715
29	774.05	1,912,639	-13,339	15,880	32	231	0	16,143	0	2,804
30	772.56	1,897,434	-15,205	17,779	32	205	0	18,016	0	2,811
31	771.15	1,883,126	-14,308	17,379	31	179	0	17,589	0	3,281
Total			-470,564	544,626	979	8,638	0	554,243	0	83,679

1/ Includes bypass flows

2/ Evaporation will be zero for days when there is precipitation or heavy overcast.

3/ Does not include pumpback.

**Table 5. Thermalito Forebay
Including Diversion Pool and Power Canal
Daily Operation**

Capacity: 25,120 ac-ft

(in acre-feet except as noted)

July 2002

Date	Storage 1/	Storage Change	Inflow			Outflow					Losses (-) And Gains (+)	
			Lake Oroville Releases 2/	Kelly Ridge Generation	Thermalito Pumping- Generating Plant Pumpback	Thermalito Pumping- Generating Plant Generation 3/	Butte County	Thermalito Irrigation District	Releases To River 4/	Hyatt Powerplant Pumpback		
Jun 30	24,026											
1	23,389	-637	17,312	502	0	17,678	1	14	1,299	0	541	
2	23,566	177	18,975	505	0	18,148	1	14	1,399	0	259	
3	23,948	382	16,962	505	0	15,822	1	14	1,399	0	151	
4	23,679	-269	17,037	375	0	16,593	1	14	1,399	0	326	
5	23,700	21	18,434	514	0	17,729	1	14	1,397	0	214	
6	23,807	107	19,183	498	0	18,446	1	14	1,389	0	276	
7	23,308	-499	19,464	505	0	19,314	1	14	1,404	0	265	
8	23,032	-276	19,459	505	0	19,118	1	14	1,413	0	306	
9	23,273	241	20,679	507	0	19,781	1	14	1,407	0	258	
10	23,786	513	19,779	508	0	18,477	1	14	1,520	0	238	
11	23,364	-422	19,244	512	0	19,073	1	14	1,585	0	495	
12	23,506	142	21,982	510	0	21,246	1	14	1,579	0	490	
13	24,121	615	12,726	478	0	11,544	1	14	1,405	0	375	
14	24,177	56	12,379	486	0	12,308	1	14	1,407	0	921	
15	23,612	-565	19,303	516	0	19,234	2	14	1,407	0	273	
16	23,449	-163	20,772	506	0	20,327	2	14	1,399	0	301	
17	23,036	-413	21,042	514	0	21,375	2	14	1,399	0	821	
18	23,729	693	18,798	484	0	17,436	2	15	1,399	0	263	
19	23,914	185	17,830	510	0	17,140	2	15	1,399	0	401	
20	23,887	-27	13,864	506	0	13,002	2	15	1,399	0	21	
21	23,873	-14	11,165	508	0	10,322	2	15	1,399	0	51	
22	24,198	325	15,904	456	0	14,874	2	15	1,403	0	259	
23	23,558	-640	18,078	508	0	18,049	2	15	1,397	0	237	
24	23,356	-202	17,991	508	0	17,489	2	15	1,397	0	202	
25	23,166	-190	18,860	478	0	18,330	2	15	1,399	0	218	
26	23,703	537	19,656	508	0	18,312	2	15	1,397	0	99	
27	23,905	202	15,979	355	0	15,381	2	15	1,399	0	665	
28	23,572	-333	10,731	510	0	10,464	2	15	1,411	0	318	
29	23,583	11	15,880	502	0	15,216	2	15	1,575	0	437	
30	23,494	-89	17,779	508	0	17,214	2	15	1,490	0	345	
31	23,362	-132	17,379	508	0	16,772	2	15	1,409	0	179	
Total		-664	544,626	15,295	0	526,214	48	448	44,080	0	10,205	

1/ Sum of Thermalito Forebay and Diversion Pool.

2/ Sum of releases from Lake Oroville through Hyatt plant, and spill.

3/ Includes Bypass flows at Thermalito.

4/ The sum of the flows from fish barrier dam and the fish hatchery.

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Table 6. Thermalito Afterbay

Daily Operation

(in acre-feet except as noted)

Capacity: 57,040 ac-ft

July 2002

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow	Outflow						Losses (-) and Gains (+)	Total Releases to River 2/	
				Thermalito Pumping-Generating Plant Generation 1/	Sutter Butte Canal	Western Canal Lateral	Richvale Canal	Western Canal	Afterbay River Outlet	Thermalito Pumping-Generating Plant Pumpback			
Jun 30	127.54	24,470											
1	127.98	25,771	1,301	17,678	3,273	30	882	2,023	9,660	0	-509	10,959	
2	128.73	28,062	2,291	18,148	3,273	30	882	1,984	9,580	0	-108	10,979	
3	128.67	27,875	-187	15,822	3,273	31	881	1,946	9,580	0	-298	10,979	
4	128.85	28,437	562	16,593	3,330	31	881	1,928	9,620	0	-241	11,019	
5	128.96	28,783	346	17,729	3,330	31	881	1,928	11,108	0	-105	12,505	
6	129.12	29,290	507	18,446	3,330	31	881	1,928	11,584	0	-185	12,973	
7	129.47	30,413	1,123	19,314	3,293	31	881	1,960	11,584	0	-442	12,988	
8	129.81	31,523	1,110	19,118	3,273	31	879	2,003	11,584	0	-238	12,997	
9	130.30	33,156	1,633	19,781	3,293	32	881	2,063	11,584	0	-295	12,991	
10	130.44	33,629	473	18,477	3,330	32	881	2,083	11,483	0	-195	13,003	
11	130.69	34,483	854	19,073	3,330	32	881	2,083	11,385	0	-508	12,970	
12	131.51	37,353	2,870	21,246	3,310	34	881	2,103	11,385	0	-663	12,964	
13	129.57	30,737	-6,616	11,544	3,330	36	849	2,122	11,544	0	-279	12,949	
14	127.84	25,353	-5,384	12,308	3,292	36	839	2,122	10,572	0	-831	11,979	
15	128.53	27,442	2,089	19,234	3,273	36	829	2,083	10,572	0	-352	11,979	
16	129.52	30,575	3,133	20,327	3,273	34	835	2,063	10,572	0	-417	11,971	
17	130.63	34,277	3,702	21,375	3,253	32	841	2,083	10,552	0	-912	11,951	
18	131.08	35,835	1,558	17,436	3,233	32	841	2,083	9,580	0	-109	10,979	
19	131.34	36,750	915	17,140	3,233	32	841	2,063	9,580	0	-476	10,979	
20	130.64	34,312	-2,438	13,002	3,213	32	839	2,023	9,580	0	247	10,979	
21	128.95	28,751	-5,561	10,322	3,213	32	819	2,003	9,580	0	-236	10,979	
22	128.59	27,627	-1,124	14,874	3,253	32	811	2,003	9,580	0	-319	10,983	
23	129.35	30,025	2,398	18,049	3,253	32	811	1,982	9,580	0	7	10,977	
24	129.89	31,787	1,762	17,489	3,253	32	797	1,934	9,580	0	-131	10,977	
25	130.65	34,346	2,559	18,330	3,253	34	791	1,918	9,580	0	-195	10,979	
26	131.34	36,750	2,404	18,312	3,312	36	791	1,886	9,580	0	-303	10,977	
27	131.21	36,291	-459	15,381	3,312	38	791	1,847	9,580	0	-272	10,979	
28	129.68	31,096	-5,195	10,464	3,253	40	791	1,815	9,580	0	-180	10,991	
29	129.56	30,705	-391	15,216	3,193	40	791	1,799	9,362	0	-422	10,937	
30	130.03	32,251	1,546	17,214	3,193	40	791	1,761	9,481	0	-402	10,971	
31	130.45	33,663	1,412	16,772	3,174	38	770	1,698	9,580	0	-100	10,989	
Total			9,193	526,214	101,400	1,040	26,040	61,320	317,752	0	-9,469	361,832	

1/ Includes Bypass flows at Thermalito.

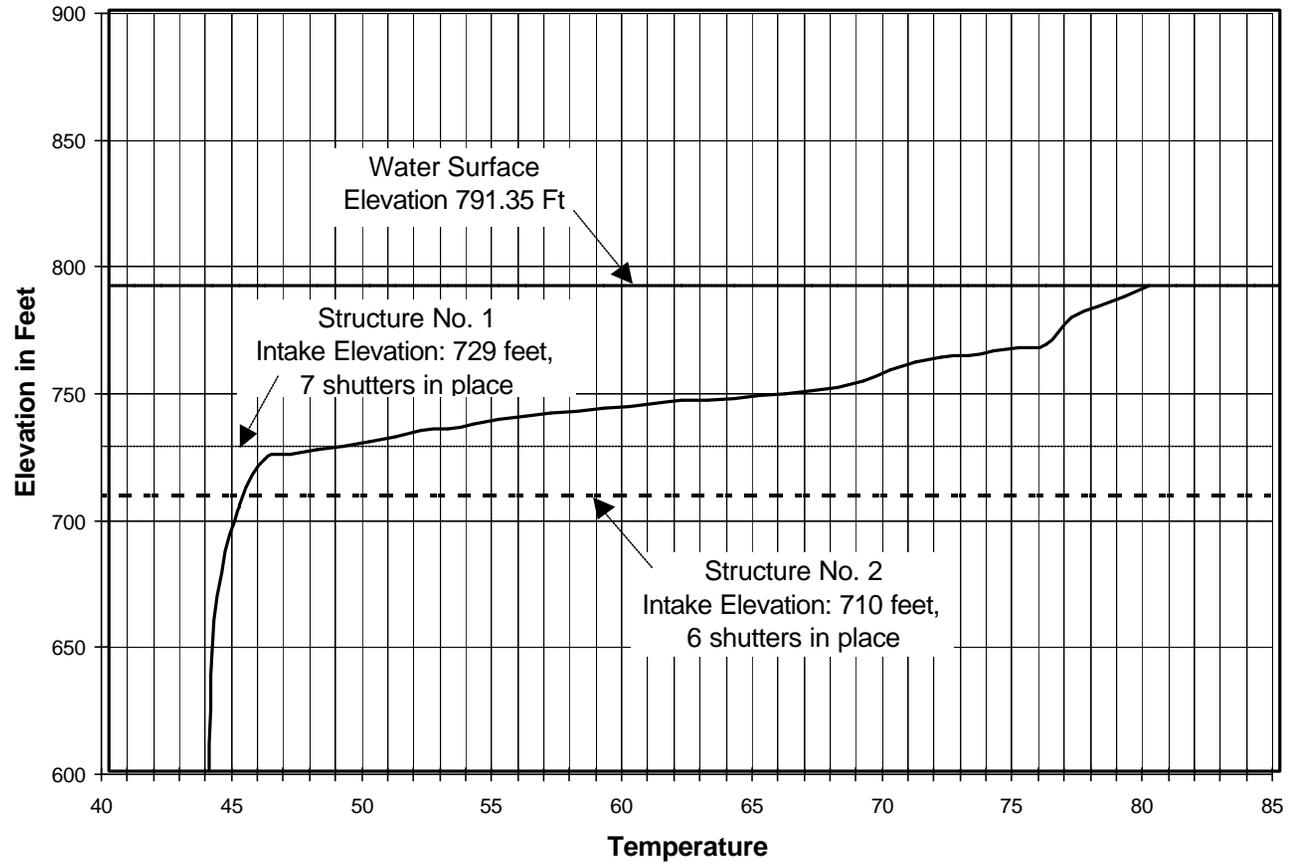
2/ The sum of the flows from the fish barrier dam, fish hatchery, and afterbay river outlet.

Table 7. Oroville-Thermalito Complex
 Water Temperature Data
 (in degrees Fahrenheit)
July 2002

Date	Mean Daily Temperature	
	Thermalito Afterbay Outlet	Fish Hatchery
1	65	58
2	64	58
3	63	56
4	64	56
5	63	57
6	62	57
7	62	58
8	63	59
9	63	60
10	64	59
11	64	56
12	64	55
13	64	55
14	63	55
15	63	55
16	61	56
17	60	57
18	60	57
19	61	57
20	62	58
21	63	57
22	64	57
23	64	56
24	63	57
25	62	58
26	62	58
27	62	59
28	63	59
29	64	59
30	65	56
31	64	57

8

Lake Oroville Temperature Profile on July 17, 2002



Note: Water surface elevations on Table 4 are taken at Oroville Dam at midnight and may differ slightly from those shown on this table which are normally taken at mid-day and upstream from Oroville Dam.

Table 9. Delta Field Division Plant Data

(in acre-feet)

July 2002

Date	North Bay Aqueduct		California Aqueduct		South Bay Aqueduct			
	Barker Slough Pumping Plant	Cordelia Pumping Plant	Banks Pumping Plant		South Bay Pumping Plant	Del Valle Pumping Plant		
			Total	SWP		Into Lake	Into Aqueduct	Gravity Flow Through Plant Into Aqueduct
1	221	109	11,469	9,574	570	0	0	0
2	206	94	11,168	9,273	619	0	0	20
3	193	82	9,593	7,364	619	33	0	16
4	188	81	9,931	6,952	619	0	0	4
5	198	93	9,854	7,353	607	0	0	0
6	208	101	9,394	6,893	590	0	0	0
7	184	80	10,168	7,693	590	0	0	0
8	197	89	9,500	7,763	594	0	0	0
9	217	106	10,497	8,760	595	0	0	0
10	247	128	11,468	8,438	575	0	0	33
11	251	130	11,358	8,328	511	0	0	91
12	236	109	12,206	10,765	532	0	0	92
13	212	96	13,054	11,603	508	0	0	92
14	219	102	12,503	11,052	500	0	0	81
15	213	107	12,456	10,251	525	0	0	70
16	193	90	12,679	10,474	589	0	0	34
17	195	87	14,058	11,853	619	0	0	6
18	197	83	12,662	10,457	608	0	0	35
19	206	91	12,294	10,089	619	0	0	48
20	210	90	12,013	9,808	619	0	0	30
21	214	102	14,580	12,375	619	0	0	0
22	180	75	13,110	10,905	619	0	0	21
23	193	88	14,534	12,329	619	0	0	40
24	195	95	13,844	11,639	619	0	0	40
25	210	100	13,842	11,637	619	0	0	44
26	217	112	13,833	11,628	618	0	0	48
27	219	112	13,855	11,650	618	0	0	57
28	203	98	13,847	12,662	618	0	0	35
29	183	85	14,073	11,868	617	0	0	47
30	191	93	13,768	11,563	617	0	0	68
31	178	78	14,997	12,792	617	0	0	60
Total	6,374	2,986	382,608	315,791	18,408	33	0	1,113

Table 10. Clifton Court Forebay
Daily Operation of Gates

July 2002

Date	Time								Amount of inflow in Acre-Feet
	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed	
1	0:01	7:24	12:00	16:30	21:05	---			10,899
2	---	11:30	13:00	15:30					10,881
3	0:10	12:32	14:22	17:25	20:57	22:42			10,901
4	3:03	9:28	13:13	19:20	21:00	23:00	23:55	---	9,905
5	---	0:25	3:38	10:10	13:15	18:40			9,899
6	0:02	1:21	4:14	10:45	14:00	18:10	23:30	---	9,912
7	---	2:09	4:53	10:34	14:52	20:00			9,912
8	0:01	2:55	5:32	11:36	16:08	19:40			9,890
9	0:01	3:40	6:18	12:17	16:57	20:43			10,880
10	0:01	4:22	7:00	12:40	16:53	21:45			11,896
11	0:30	5:07	7:38	13:58	18:05	23:00			11,896
12	0:30	5:56	8:23	13:32	18:45	23:00			12,872
13	0:20	6:49	10:00	15:37	18:37	23:30			12,860
14	0:20	7:46	10:08	15:20	19:22	---			12,889
15	---	8:53	11:06	15:12	20:10	---			12,879
16	---	10:05	12:16	16:30	21:00	---			11,993
17	---	7:35	8:30	11:20	13:43	22:53			12,613
18	2:19	8:33	11:40	18:30	21:14	23:01			12,827
19	0:01	0:57	3:58	10:34	13:34	20:40			12,883
20	3:08	9:36	12:36	22:31					12,886
21	0:01	1:59	4:48	11:05	14:27	22:00			14,227
22	0:20	2:58	5:37	12:11	15:11	21:30			14,232
23	0:01	3:51	6:24	12:50	15:55	20:50			14,242
24	0:10	4:40	7:09	13:10	16:45	23:20			14,191
25	0:01	5:26	7:48	13:45	17:41	---			14,217
26	---	6:08	8:40	14:06	17:50	23:16			14,230
27	1:00	6:54	9:15	14:50	18:23	23:20			14,231
28	0:01	7:40	9:47	15:57	19:00	---			14,225
29	---	8:29	10:30	16:00	19:34	22:39			14,240
30	0:07	9:25	11:21	17:09	20:09	---			12,720
31	---	10:26	12:25	17:51	20:51	---			11,393
Total inflow for the month in AF:									383,721

Table 11. Governor Edmund G. Brown California Aqueduct
Delta Field Division, Monthly Deliveries

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries				
	Beginning and Ending					Entitlement	USBR	Local	Dry Year Purchase	Purchase Pool B
	No.	Structure	Mile							
1		Banks Pumping Plant	3.32		382,608					
2A	1	South Bay Pumping Plant	4.49	Bethany Reservoir inlet	18,408					
		Check No. 1	5.95							
		2	Check No. 2	12.01						
	3		12.47	Musco Olive	76		76			
		Check No. 3	18.29							
	4		22.16	Tracy Golf & Country Club	0					
		Check No. 4	23.99							
		5	Check No. 5	29.73						
	6	Check No. 6	34.24							
			35.22	Turlock Fruit Company Inflow	0					
	7	Check No. 7	39.91							
		8		42.46	Oak Flat Water District-A	59	59			
			42.9	Western Hills WD	136	136				
			43.81	Oak Flat Water District-B	451	451				
			44.64	Oak Flat Water District-C	165	89				76
	Check No. 8	45.97								
9		46.18	Oak Flat Water District-D	313	113			200		
			Oak Flat Totals:	988	712	0	0	200	76	
2B	9	Check No. 9	51.3							
		10	Check No. 10	56.86						
	11	Check No. 11	61.4							
	12		66.14	Veteran's Cemetery	10		10			
		Check No. 12	66.71		336,964					

Table 12. South Bay Aqueduct
Delta Field Division, Monthly Deliveries

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries				
	Beginning and Ending					Entitlement	Purchase Pool A	Local	Recreation	
	No.	Structure	Mile							
1	1	South Bay Pumping Plant	0.00	(into South Bay Aqueduct)	18,408	4				
			3.17	Granite - Vasco Rd. (Temp.)	0					
			3.18	Oakland Scavenger Zone 7	4					
	Check No. 1	3.91								
	2	Check No. 2	5.21							
2	3		7.21	Zone 7 Altamont	22	22	538	556		
		Check No. 3	9.49	Zone 7 Patterson Stored Exchange	0					
				Zone 7 Patterson Project Water	1,094					
4	4	Check No. 4	10.68							
	5	Check No. 5	12.29							
	6			13.55	Zone 7 Wente #1	307	307			
				14.16	Zone 7 Wente #2	60	60			
				14.31	Ising Project Water	19	19			
		Check No. 6	14.65							
	7			14.78	Zone 7 Arroyo Mocho	821	821			
		Check No. 7	16.38							
				16.57	Zone 7 Wente #3	104	104			
				16.69	Zone 7 Norman Nursery	26	26			
			16.70	Zone 7 Concannon Project Water	90	90				
5	8	Del Valle Branch Pipeline Junction	18.63	(Pumped into Lake Del Valle)	33					
				(Flow into South Bay Aqueduct)	1,113					
	Deliveries through Del Valle Branch Pipeline				Arroyo Valle #1 & #2 Inflow Released	37			37	
					Arroyo Valle #1 & #2 Stored Exchange	0				
					Lake Del Valle Recreation	29			29	
			Zone 7 Wente #5	112	112					
6			19.20	So. Livermore Project	2,391	2,391				
				So. Livermore Inflow Released	53			53		
				So. Livermore Stored Exchanged	0					
			19.21	Zone 7 - Kalthrof Detjens	246	246				
7	La Costa Tunnel		22.50	ACWD Vallecitos Inflow Released	53	1,178			53	
				Vallecitos Project Water	1,178					
			25.97	City of San Francisco San Antonio	0					
8	Mission Tunnel		28.97	ACWD - Bayside 1 & 2 Project Water:	2,569	2,569				
				Inflow Released	0					
				Stored Exchange:	0					
9	Santa Clara Pipeline	35.86	S.C.V.W.D. Meter	10,292	10,292					

Table 13. Lake Del Valle
Daily Operation

Capacity: 77,106 ac-ft

(in acre-feet except as noted)

July 2002

Date	Water Surface Elevation (feet)	Storage	Storage Change	Inflow		Outflow					Precipitation (inches)	
				Natural 1/	From South Bay Aqueduct	Arroyo Valle	South Bay Aqueduct	Recreation Deliveries 2/	Evaporation	Total Outflow		
Jun 30	702.07	39,260										
1	702.05	39,246	-14	4	0	0	0	0	18	18	0.00	
2	702.03	39,232	-14	21	0	0	20	0	15	35	0.00	
3	702.04	39,239	7	7	33	0	16	1	16	33	0.00	
4	701.99	39,204	-35	-13	0	0	4	1	16	22	0.00	
5	701.97	39,190	-14	3	0	0	0	1	16	17	0.00	
6	701.94	39,169	-21	-4	0	0	0	1	16	17	0.00	
7	701.92	39,155	-14	3	0	0	0	1	16	17	0.00	
8	701.89	39,134	-21	-7	0	0	0	1	13	14	0.00	
9	701.87	39,120	-14	6	0	0	0	1	19	20	0.00	
10	701.80	39,071	-49	8	0	0	33	1	23	57	0.00	
11	701.65	38,966	-105	6	0	0	91	1	19	111	0.00	
12	701.51	38,869	-97	13	0	0	92	1	16	110	0.00	
13	701.37	38,772	-97	14	0	0	92	1	18	111	0.00	
14	701.23	38,675	-97	-2	0	0	81	1	13	95	0.00	
15	701.14	38,612	-63	28	0	0	70	1	20	91	0.00	
16	701.07	38,564	-48	1	0	0	34	1	15	49	0.00	
17	701.05	38,550	-14	8	0	0	6	1	15	22	0.00	
18	700.96	38,488	-62	-11	0	0	35	1	15	51	0.00	
19	700.89	38,439	-49	15	0	0	48	1	15	64	0.00	
20	700.83	38,398	-41	8	0	0	30	1	17	49	0.00	
21	700.82	38,391	-7	7	0	0	0	1	13	14	0.00	
22	700.77	38,356	-35	-1	0	0	21	1	12	34	0.00	
23	700.72	38,322	-34	20	0	0	40	1	13	54	0.00	
24	700.64	38,267	-55	-1	0	0	40	1	13	54	0.00	
25	700.56	38,212	-55	4	0	0	44	1	13	59	0.00	
26	700.45	38,136	-76	-14	0	0	48	1	12	62	0.00	
27	700.36	38,074	-62	9	0	0	57	1	13	71	0.00	
28	700.30	38,033	-41	5	0	0	35	1	11	46	0.00	
29	700.23	37,985	-48	11	0	0	47	1	11	59	0.00	
30	700.09	37,889	-96	-14	0	0	68	1	13	82	0.00	
31	700.00	37,827	-62	11	0	0	60	1	13	73	0.00	
Total			-1,433	143	33	0	1,113	29	467	1,609	0.00	

1/ Total inflow from stream gaging station above Lang Canyon and accretions/depletions.

2/ To East Bay Regional Park District.

NR=No Records

Table 14. Consolidated State-Federal O'Neill Forebay

Daily Operations

July 2002

United States
Department of the Interior
Bureau of Reclamation
Central Valley Project

State of California
The Resources Agency
Department of Water Resources
State Water Project

Date	Water Surface Elevation (in feet)	Storage (ac-ft)	Storage Change	Inflow (cfs)				Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
				Pump In 1/	O'Neill Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	California Aqueduct	O'Neill Pumping Generating Plant (Generation)	Gianelli Pumping Generating Plant (Pumped)	Dos Amigos Pumping Plant	Deliveries 2/	
Jun 30	219.45	41,733										
1	220.08	43,360	1,627	0	231	4,520	4,273	162	0	8,314	39	311
2	220.69	44,949	1,589	0	192	5,221	4,815	0	0	9,454	41	68
3	220.21	43,697	-1,252	0	47	3,525	4,263	143	0	8,290	38	5
4	218.86	40,229	-3,468	0	0	3,466	4,326	200	0	9,555	40	255
5	221.56	47,230	7,001	0	53	8,852	4,048	76	0	9,192	35	-120
6	221.28	46,495	-735	0	91	5,059	4,072	0	0	9,890	41	338
7	219.13	40,915	-5,580	0	87	3,420	4,429	0	0	10,731	33	15
8	221.90	48,124	7,209	0	269	8,367	4,173	0	0	9,310	36	171
9	222.74	50,353	2,229	0	369	5,318	4,544	0	0	9,563	37	493
10	222.83	50,593	240	0	139	4,997	5,027	0	0	10,091	38	87
11	221.93	48,203	-2,390	0	157	4,567	5,013	0	703	10,224	43	28
12	222.12	48,703	500	0	273	4,913	5,413	0	0	10,183	38	-126
13	220.96	45,656	-3,047	0	183	0	5,929	0	0	7,571	36	-41
14	219.30	41,349	-4,307	0	135	2,762	5,986	0	0	11,546	39	531
15	220.13	43,489	2,140	0	106	5,614	5,251	0	0	9,436	42	-414
16	221.44	46,915	3,426	0	0	4,806	5,744	0	0	8,998	38	213
17	222.96	50,939	4,024	0	0	5,265	6,589	0	548	9,340	35	98
18	222.81	50,539	-400	0	0	2,978	5,358	0	0	9,007	37	506
19	222.31	49,208	-1,331	0	0	2,629	5,834	0	0	9,164	38	68
20	221.74	47,703	-1,505	0	0	3,805	5,234	0	0	9,729	36	-33
21	221.55	47,204	-499	0	0	3,111	6,253	0	0	9,898	37	319
22	222.56	49,873	2,669	0	215	2,064	6,256	0	0	7,467	38	316
23	222.75	50,379	506	0	390	3,090	6,423	0	1,090	8,778	40	260
24	222.10	48,650	-1,729	0	378	3,393	6,297	0	1,697	8,851	35	-357
25	221.59	47,309	-1,341	0	396	2,476	6,469	0	1,655	8,487	34	159
26	220.78	45,184	-2,125	0	446	2,480	6,232	0	1,925	8,400	42	138
27	221.31	46,574	1,390	0	459	2,472	6,248	0	0	8,622	35	179
28	220.09	43,386	-3,188	0	566	0	6,298	0	0	8,759	38	326
29	222.24	49,022	5,636	0	758	2,664	6,143	0	0	7,109	36	421
30	223.84	53,296	4,274	0	831	2,639	6,253	0	0	7,756	38	226
31	223.73	53,001	-295	0	594	878	6,689	0	0	8,651	34	375
Total			11,268	0	7,365	115,351	169,882	581	7,618	282,366	1,167	4,815
Mean cfs			- - -	0	238	3,721	5,480	19	246	9,109	38	155
Acre-feet			11,268	0	14,607	228,799	336,964	1,150	15,109	560,076	2,314	9,547

1/ Pump-in located at Mile 79.67R.

2/ Includes 101 AF delivered to DFG at O'Neill Forebay, 31 AF to Parks and Recreation, and 2,182 AF to SLWD.

Table 15. Consolidated State-Federal San Luis Reservoir

Daily Operations

July 2002

United States
Department of the Interior
Bureau of Reclamation
Central Valley Project

State of California
The Resources Agency
Department of Water Resources
State Water Project

Capacity: 2,027,835 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)				Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
				Gianelli Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	Pacheco Tunnel 1/	Parks and Rec. Del.	Gianelli Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	Pacheco Tunnel 1/	Parks and Rec. Del.	
Jun 30	439.91	873,969										
1	438.94	864,707	-9,262	0	4,520	215	0	65				
2	437.78	853,674	-11,033	0	5,221	236	0	-105				
3	437.01	846,376	-7,298	0	3,525	251	0	97				
4	436.24	839,101	-7,275	0	3,466	235	0	33				
5	434.36	821,426	-17,675	0	8,852	226	0	167				
6	433.24	810,958	-10,468	0	5,059	227	0	8				
7	432.48	803,881	-7,077	0	3,420	227	0	79				
8	430.69	787,296	-16,585	0	8,367	209	0	215				
9	429.45	775,876	-11,420	0	5,318	242	0	-197				
10	428.32	765,519	-10,357	0	4,997	253	0	28				
11	427.41	757,213	-8,306	703	4,567	259	0	-65				
12	426.29	747,033	-10,180	0	4,913	275	0	56				
13	426.22	746,398	-635	0	0	287	0	-33				
14	425.60	740,790	-5,608	0	2,762	276	0	211				
15	424.34	729,411	-11,379	0	5,614	250	0	127				
16	423.23	719,443	-9,968	0	4,806	278	0	59				
17	422.10	709,347	-10,096	548	5,265	271	0	-102				
18	421.39	703,031	-6,316	0	2,978	236	0	30				
19	420.74	697,267	-5,764	0	2,629	238	0	-39				
20	419.84	689,316	-7,951	0	3,805	236	0	32				
21	419.08	682,628	-6,688	0	3,111	233	0	-28				
22	418.56	678,066	-4,562	0	2,064	219	0	-17				
23	418.04	673,516	-4,550	1,090	3,090	233	0	-61				
24	417.71	670,634	-2,882	1,697	3,393	249	0	492				
25	417.48	668,629	-2,005	1,655	2,476	239	0	49				
26	417.29	666,974	-1,655	1,925	2,480	238	0	-41				
27	416.68	661,670	-5,304	0	2,472	238	0	36				
28	416.59	660,889	-781	0	0	235	0	-159				
29	415.92	655,084	-5,805	0	2,664	218	0	-45				
30	415.26	649,385	-5,699	0	2,639	256	0	22				
31	414.97	646,887	-2,498	0	878	442	1	62				
Total			-227,082	7,618	115,351	7,727	1	976				
Mean cfs			- - -	246	3,721	249	0	31				
Acre-feet			-227,082	15,109	228,799	15,327	2	1,937				

1/ Pacheco Tunnel, San Felipe Split; Santa Clara: 11,585 AF, San Benito: 3,742 AF.

Table 16. San Luis Field Division Plant Data

(in acre-feet)

July 2002

Date	Dos Amigos Pumping Plant		Gianelli Pumping - Generating Plant				San Felipe Project
	Total Pumping	SWP Pumping 1/ 2/	Total Generation	SWP Generation 1/ 2/	Total Pumping	SWP Pumping 1/ 2/	Federal
1	16,490	10,951	8,965	7,247	0	0	426
2	18,753	13,242	10,356	6,855	0	0	468
3	16,443	10,945	6,992	3,472	0	0	498
4	18,952	12,726	6,875	4,272	0	0	466
5	18,232	11,988	17,558	13,144	0	0	449
6	19,617	13,296	10,034	5,584	0	0	450
7	21,285	15,063	6,784	2,381	0	0	450
8	18,466	12,906	16,595	12,099	0	0	415
9	18,969	13,399	10,549	6,173	0	0	480
10	20,016	14,451	9,911	7,861	0	0	501
11	20,280	14,807	9,058	9,058	1,394	1,394	513
12	20,198	14,697	9,744	9,744	0	0	546
13	15,018	9,418	0	0	0	0	569
14	22,902	17,416	5,479	5,479	0	0	547
15	18,717	11,421	11,136	6,771	0	0	496
16	17,847	10,431	9,532	5,371	0	0	551
17	18,526	11,110	10,443	2,472	1,086	1,086	538
18	17,865	10,396	5,907	864	0	0	468
19	18,177	10,722	5,215	1,382	0	0	473
20	19,298	11,859	7,548	1,767	0	0	468
21	19,633	12,269	6,171	366	0	0	462
22	14,811	7,405	4,094	160	0	0	435
23	17,411	10,066	6,129	265	2,162	2,162	462
24	17,555	10,199	6,730	1,232	3,366	3,366	493
25	16,833	9,318	4,912	202	3,283	2,183	474
26	16,662	9,239	4,919	246	3,818	3,818	473
27	17,102	9,680	4,904	225	0	0	472
28	17,374	10,883	0	0	0	0	467
29	14,101	6,630	5,284	173	0	0	433
30	15,384	7,921	5,234	29	0	0	507
31	17,159	9,624	1,741	-38	0	0	877
Total	560,076	354,478	228,799	114,856	15,109	14,009	15,327

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

2/ Provisional, subject to change.

Table 17. Consolidated State-Federal Los Banos Reservoir

Daily Operations
July 2002

United States
Department of the Interior
Bureau of Reclamation
Central Valley Project

State of California
The Resources Agency
Department of Water Resources
State Water Project

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft)
					Spill	Outlet	
Jun 30	326.42	19,933					
1	326.40	19,924	-9	0	0	0	-9
2	326.36	19,906	-18	0	0	0	-18
3	326.33	19,892	-14	0	0	0	-14
4	326.29	19,873	-19	0	0	0	-19
5	326.25	19,855	-18	0	0	0	-18
6	326.22	19,841	-14	0	0	0	-14
7	326.19	19,827	-14	0	0	0	-14
8	326.17	19,818	-9	0	0	0	-9
9	326.16	19,813	-5	0	0	0	-5
10	326.13	19,800	-13	0	0	0	-13
11	326.11	19,790	-10	0	0	0	-10
12	326.08	19,777	-13	0	0	0	-13
13	326.06	19,767	-10	0	0	0	-10
14	326.02	19,749	-18	0	0	0	-18
15	325.97	19,726	-23	0	0	0	-23
16	325.93	19,708	-18	0	0.50	0	-17
17	325.90	19,694	-14	0	0	0	-14
18	325.87	19,680	-14	0	0	0	-14
19	325.85	19,671	-9	0	0	0	-9
20	325.82	19,657	-14	0	0	0	-14
21	325.78	19,639	-18	0	0	0	-18
22	325.75	19,625	-14	0	0	0	-14
23	325.73	19,616	-9	0	0	0	-9
24	325.71	19,607	-9	0	0	0	-9
25	325.69	19,598	-9	0	0	0	-9
26	325.67	19,589	-9	0	0	0	-9
27	325.64	19,575	-14	0	0	0	-14
28	325.59	19,552	-23	0	0	0	-23
29	325.58	19,548	-4	0	0	0	-4
30	325.55	19,534	-14	0	0	0	-14
31	325.52	19,520	-14	0	0	0	-14
Total			-413	0	0.5	0	-412
Mean cfs			---	0	0	0	---
Acre-feet			-413	0	1	0	-412

Table 18. Consolidated State-Federal Little Panoche Reservoir

Daily Operations

July 2002

United States
 Department of the Interior
 Bureau of Reclamation
 Central Valley Project

Capacity: 5,580 ac-ft

State of California
 The Resources Agency
 Department of Water Resources
 State Water Project

Date	Water Surface Elev. (in feet)	Storage (ac-ft) 1/	Storage Change (ac-ft) 1/	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft) 1/
					Spill	Outlet	
Jun 30	601.20	747					
1	Not Observed			1	0	1	
2	Not Observed			1	0	1	
3	Not Observed			1	0	1	
4	Not Observed			1	0	1	
5	601.10	741	-6	0	0	0	
6	Not Observed			0	0	0	
7	Not Observed			0	0	0	
8	Not Observed			0	0	0	
9	Not Observed			0	0	0	
10	Not Observed			0	0	0	
11	Not Observed			0	0	0	
12	601.00	736	-5	0	0	0	
13	Not Observed			0	0	0	
14	Not Observed			0	0	0	
15	Not Observed			0	0	0	
16	Not Observed			0	0	0	
17	Not Observed			0	0	0	
18	Not Observed			0	0	0	
19	600.90	731	-5	0	0	0	
20	Not Observed			0	0	0	
21	Not Observed			0	0	0	
22	Not Observed			0	0	0	
23	Not Observed			0	0	0	
24	Not Observed			0	0	0	
25	Not Observed			0	0	0	
26	600.80	725	-6	0	0	0	
27	Not Observed			0	0	0	
28	Not Observed			0	0	0	
29	Not Observed			0	0	0	
30	Not Observed			0	0	0	
31	600.80	725	0	0	0	0	
Total			-22	4	0	4	---
Mean cfs			---	0	0	0	---
Acre-feet			-22	8	0	8	-22

1/ Not available on a daily basis

Table 19a. Governor Edmund G. Brown California Aqueduct
San Luis Field Division, Monthly Deliveries

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries							
	Beginning and Ending					USBR	Transfer	DWR Recreation	USBR Recreation				
	No.	Structure	Mile										
2B	12	Check No. 12	66.71		336,964								
3A		San Luis Reservoir		Department of Parks and Recreation	2	11,585		1	1				
				San Felipe Division Santa Clara Water District	11,585								
				San Felipe Division San Benito Water District	3,742								
3	13	O'Neill Forebay	70.85	Department of Parks and Recreation	31	2,182	0	17	14				
				Cattle Program	0								
				Department of Fish & Game	101								
			70.91 Thru 85.08	San Luis Water District	2,182								
				(Floodwater Inflow)	0								
				Reach 3 Subtotal:	2,314					2,182	0	73	59
			Check No. 13 Dos Amigos Pumping Plant	86.73						560,076			
4	14			89.03 Thru 94.06	San Luis Water District	12,632	12,632						
				89.66 Thru 89.67	Pacheco Water District	2,750	2,750						
				89.68	Panoche Water District	42	42						
				89.70	City of Dos Palos	185	185						
				Check No. 14	95.06								
	15				98.15 Thru 104.20	San Luis Water District	1,608	1,608					
					96.15 Thru 102.64	Panoche Water District	13,518	8,302	5,216				
					102.64	(Floodwater Inflow)	0	4					
					102.64	Broadview Water District	4						
					105.22 Thru 108.64	Westlands Water District	23,492	15,557	7,935				
Check No.15	108.50												
				San Felipe Division Total:	15,327	15,327	0	0	0				
				Pacheco Water District Total:	2,750	2,750	0	0	0				
				Broadview Water District Total:	4	4	0	0	0				
				City of Dos Palos Total:	185	185	0	0	0				
				SLWD Reach 4 Subtotal:	14,240	14,240	0	0	0				
				Panoche Water District Total:	13,560	8,344	5,216	0	0				
				SLWD Total:	16,422	16,422	0	0	0				
				Westlands WD Reach 4 Subtotal:	23,492	15,557	7,935	0	0				

Table 19b. Governor Edmund G. Brown California Aqueduct
 San Luis Field Division, Monthly Deliveries (Continued)

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries				
	Beginning and Ending					USBR	Transfer	DWR Recreation	USBR Recreation	
	No.	Structure	Mile							
5	16		110.52	(Reverse flow, Kings River)	0	28,851		1		
			Thru		Westlands Water District					28,851
			122.05		Department of Fish and Game					1
			Check No. 16	122.07						
	17			124.18	Westlands Water District	18,756	18,756			
			Thru							
			Check No. 17	132.95						
	18			133.81	Westlands Water District	20,172	20,172			
			Thru							
			Pleasant Valley Pumping Plant	143.16	Westlands Water District	16,488	16,488			
				143.16	City of Coalinga	591	591			
			Check No. 18	143.23						
				Westlands WD Reach 5 Subtotal:	84,267	84,267	0	0	0	
6	19		145.26	Westlands Water District	36,181	36,181				
			Thru							
		Check No. 19	155.64							
				Westlands WD Reach 6 Subtotal:	36,181	36,181	0	0	0	
7	20		156.34	City of Huron	131	131				
			156.40	Westlands Water District	17,981	17,981				
			Thru							
		Check No. 20	164.69							
	21		164.79	City of Avenal	278	278				
			167.04	Westlands Water District	5,090	5,090				
	Thru		171.67							
		Check No. 21	172.40		378,841					
				Reach 7 Total:	23,480	23,480	0	0	0	
				Westlands WD Total:	167,011	159,076	7,935	0	0	
				City of Coalinga Total:	591	591	0	0	0	
				City of Huron Total:	131	131	0	0	0	
				City of Avenal Total:	278	278	0	0	0	
				Phase I Water Total:	0	0	0	0	0	
Total San Luis Field Division Deliveries:					216,394	203,108	13,151	75	60	

**Table 20. Consolidated State-Federal San Luis Canal 1/
Daily Operations
July 2002**

United States
Department of the Interior
Bureau of Reclamation
Central Valley Project

State of California
The Resources Agency
Department of Water Resources
State Water Project

Date	Storage In Canal (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)		Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
			Non-Project 2/	Dos Amigos Pumping Plant	Pools 14 & 15 3/	Pool 15	Pools 15 thru 21 4/	Flow Past Check 21	
Jun 30	29,813								
1	28,912	-901	0	8,314	280	223	2,610	5,765	109
2	30,326	1,414	0	9,454	279	220	2,874	5,423	55
3	28,190	-2,136	0	8,290	280	220	2,848	6,178	160
4	28,655	465	0	9,555	281	223	2,833	5,994	11
5	28,933	278	0	9,192	279	221	2,738	5,684	-129
6	28,481	-452	0	9,890	277	220	2,726	6,979	84
7	29,451	970	0	10,731	280	223	2,665	7,341	267
8	29,019	-432	0	9,310	279	220	2,751	6,537	260
9	28,629	-390	0	9,563	278	223	2,664	6,565	-29
10	28,734	105	0	10,091	280	220	2,666	6,762	-110
11	28,583	-151	0	10,224	278	219	2,877	7,002	76
12	28,052	-531	0	10,183	279	220	2,770	7,079	-103
13	27,155	-897	0	7,571	281	219	2,818	4,477	-228
14	29,476	2,321	0	11,546	280	220	2,761	7,041	-74
15	29,235	-241	0	9,436	279	219	2,818	6,445	203
16	29,406	171	0	8,998	280	219	2,822	5,602	11
17	29,556	150	0	9,340	281	220	2,728	6,077	42
18	29,284	-272	0	9,007	280	219	2,629	6,027	11
19	28,711	-573	0	9,164	279	221	2,633	6,475	156
20	28,836	125	0	9,729	277	221	2,701	6,838	371
21	30,295	1,459	0	9,898	278	219	2,697	6,622	653
22	28,823	-1,472	0	7,467	280	222	2,896	5,758	947
23	29,245	422	0	8,778	278	221	2,545	6,077	555
24	29,837	592	0	8,851	280	221	2,743	6,083	775
25	29,075	-762	0	8,487	281	219	2,587	6,274	490
26	28,908	-167	0	8,400	279	219	2,590	5,917	521
27	28,458	-450	0	8,622	281	221	2,845	6,340	838
28	29,574	1,116	0	8,759	278	219	2,543	5,952	795
29	28,921	-653	0	7,109	279	221	2,861	5,042	964
30	28,519	-402	0	7,756	280	223	2,788	5,558	890
31	30,533	2,014	0	8,651	278	221	2,680	5,080	624
Total		720	0	282,366	8,659	6,836	84,707	190,996	9,195
Mean cfs		- - -	0	9,109	279	221	2,732	6,161	297
Acre-feet		720	0	560,076	17,175	13,560	168,016	378,841	18,236

1/ San Luis Canal includes Pools 14 through 21 of the California Aqueduct.

2/ Pump In of Non-Project Water and Flood Water is included in the gain or loss.

3/ Includes 2,748 AF AG & 2 AF M&I to Pacheco W.D. and 185 AF to the City of Dos Palos.

4/ Includes 131 AF to the City of Huron, 278 AF to the City of Avenal, 591 AF to the City of Coalinga, 0 AF Phase I Water @ Lat. 13R, 4 AF to Broadview W.D., and 1 AF to F&G @ WWD Lateral 4L.

Table 21. San Joaquin Field Division Plant Data

(in acre-feet)

July 2002

Date	Coastal Aqueduct					California Aqueduct			
	Las Perillas Pumping Plant	Badger Hill Pumping Plant	Devil's Den Pumping Plant	Bluestone Pumping Plant	Polonio Pass Pumping Plant	Buena Vista Pumping Plant	Teerink Pumping Plant	Chrisman Pumping Plant	Edmonston Pumping Plant
1	470	470	101	93	100	6,207	6,044	5,632	5,586
2	492	492	95	90	95	6,221	5,886	5,453	5,315
3	468	468	98	91	96	5,943	5,573	5,113	4,907
4	604	604	114	107	112	6,626	6,299	5,909	5,828
5	455	455	99	94	98	6,331	6,229	5,895	5,745
6	577	577	78	71	78	7,331	6,953	6,618	6,502
7	581	581	102	97	108	8,351	8,186	7,806	7,735
8	424	424	78	72	78	7,144	6,848	6,571	6,470
9	434	434	87	82	88	7,542	7,306	6,812	6,631
10	508	508	105	101	106	7,509	7,226	6,695	6,557
11	518	518	122	118	120	7,875	7,558	7,039	6,905
12	516	516	110	87	110	7,607	7,329	6,820	6,768
13	620	620	96	91	96	2,116	1,476	948	825
14	552	552	133	125	133	7,853	7,733	7,376	7,402
15	423	423	67	64	69	6,600	6,196	5,692	5,562
16	483	483	100	96	101	6,557	6,141	5,641	5,562
17	475	475	95	89	92	6,772	6,305	5,862	5,742
18	441	441	86	82	88	6,514	6,191	5,750	5,643
19	485	485	97	91	97	6,604	6,162	5,735	5,589
20	621	621	105	101	105	7,004	6,794	6,432	6,309
21	587	587	113	104	113	7,979	7,819	7,504	7,467
22	407	407	66	72	74	6,244	6,024	5,694	5,592
23	470	470	83	78	84	6,559	6,120	5,734	5,581
24	489	489	101	94	100	6,644	6,331	5,967	5,938
25	489	489	108	102	108	6,825	6,555	6,127	6,016
26	496	496	103	97	101	6,798	6,272	5,832	5,723
27	579	579	89	83	90	7,074	6,859	6,431	6,317
28	576	576	115	108	117	7,030	6,911	6,211	6,590
29	417	417	75	71	78	5,231	5,143	4,839	4,692
30	473	473	100	91	97	5,862	5,511	5,121	4,996
31	452	452	97	92	96	5,863	5,486	5,085	4,939
Total	15,582	15,582	3,018	2,834	3,028	206,816	197,466	184,344	181,434

Table 22a. Governor Edmund G. Brown California Aqueduct
 San Joaquin Field Division, Monthly Deliveries

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries				
	Beginning and Ending					Entitle-ment	USBR	Purchase Pool A	Purchase Pool B	MWD Ent.
	No.	Structure	Mile							
7	21	Check No. 21	172.40		378,841					
8C			172.66	Empire West Side Irrig. Dist. TL - A	0	500				
				County of Kings TL - A	500					
				TLBWSD TL-A	1,651					
8D	22		175.18	DRWD - 1	738	1,651				
			177.54	DRWD - 1B	193					
			180.64	TLBWSD - C	0					
			180.65	DRWD - 1A	1,212					
			182.99	DRWD - 2	4,768					
			183.00	Tulare Lake Basin WSD TL - B	4,221					
			184.63	Coastal Branch	15,582					
31A			184.78	Dudley Ridge Water Dist. DRWD - 3	3,490	3,490				
8D				Dudley Ridge Reach 8D Total:	10,401	10,401	0	0	0	0
				Tulare Lake Basin WSD Total:	5,872	5,872	0	0	0	0
		Check No. 22	184.82							
9	23		189.69	Kern County Water Agency Lost Hills Water Dist. - 1	8,968	6,454		873	1,641	
			191.18	Kern County Water Agency Lost Hills Water Dist. - 2	2,361					
			194.22	Kern County Water Agency Lost Hills Water Dist. - 3	459					
			196.40	Kern County Water Agency Berrenda Mesa - 2	0					
			196.75	Kern County Water Agency Lost Hills Water Dist. - 4	2,574					
				K.C.W.A. Reach 9 Subtotal:	14,362					
		Check No. 23	197.05							
10A	24		201.24	Kern County Water Agency Lost Hills Water Dist. - 7	1,063	1,063				
			202.05	Kern County Water Agency Lost Hills Water Dist. - 5	303					
			204.69	Kern County Water Agency Lost Hills Water Dist. - 6	0					
			205.26	Kern County Water Agency Lost Hills Water Dist. - 8	0					
		Check No. 24	207.94							
10A	25		209.71	Kern County Water Agency Belridge Water Storage Dist. - 1A	3,242	3,242		60		
			209.78	Kern National Wildlife Refuge USBR BV-1B	60					
				Kern County Water Agency Buena Vista WSD 1B	1,512					
			209.80	KCWA Semitropic WSD	8,107					
				KCWA Semitropic WSD Penstocks	14,890					
	USBR Total:	60	0	60	0	0	0			
		K.C.W.A. Reach 10A Subtotal:	29,117	25,847	0	1,135	2,135	0		

Table 22b. Governor Edmund G. Brown California Aqueduct
 San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries					
	Beginning and Ending					Entitle-ment	CVC Wheeling	Purchase Pool A	Purchase Pool B	MWD Ent.	
	No.	Structure	Mile								
11B	25		210.75	Kern County Water Agency Belridge - 2	0	1,054					
			214.11	Kern County Water Agency Belridge - 3	1,054						
			216.62	Kern County Water Agency Belridge - 4	0						
			217.13		Kern County Water Agency Belridge - 5	17,181	14,571		906	1,704	
					Kern County Water Agency Belridge - 5D	143					
				Check No. 25	217.79			143			
				K.C.W.A. Reach 11B Subtotal:	18,378	15,768	0	906	1,704	0	
12D	26		219.58	Kern County Water Agency Belridge - 6	0	79					
				Kern County Water Agency West Kern - 3	79						
			Check No. 26	224.92							
12E	27		230.37	Kern County Water Agency Buena Vista - 6	5,344	4,806		187	351		
			Check No. 27	231.73							
	28			235.75	Kern County Water Agency Buena Vista - 2	9,529	16,535		888	344	1,668
					Kern County WA CVC	19,091					
					DRWD CVC	0					
					Tulare Co.	3,450					
					Hills Valley	2,175					
					Fresno Co.	1,950					
					Tri Valley	742					
		Hacienda DWR Wells	0								
		Check No. 28	238.11								
				1/ Arvin Edison Total:	8,317	0	8,317	0	0	0	
				Reach 12E Subtotal:	42,281	30,343	8,317	1,258	2,363	0	
13B	29		238.19	Kern Water Bank Inflow	0	8,821		156	293		
				Kern Water Bank Outflow	0						
			241.02	Kern River Intertie (inflow)	0						
			242.85	KCWA Buena Vista WSD - 7	9,270						
				KCWA Buena Vista WSD - 5	707						
		243.09	Kern County Water Agency Buena Vista - 3	6,943	6,943						
	Check No. 29	244.54	Buena Vista WSD	0							
30			249.85	Kern County Water Agency Buena Vista - 4	2,053	1,304		260	489		
				Buena Vista Pumping Plant	206,816						
				250.99							
				K.C.W.A. Reach 13B Subtotal:	18,973	17,775	0	416	782	0	
14A	31		254.47	Kern County Water Agency West Kern - 2	0	115					
				256.11	Kern County Water Agency Wheeler Ridge-Maricopa - 2						115

1/ Arvin Edison Contractors include Rag Gulch WD, Kern-Tulare WD, Fresno County, Hills Valley ID, Tri Valley WD, Tulare County, Lower Tule River ID, and Pixley ID.

Table 22c. Governor Edmund G. Brown California Aqueduct
 San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries					
	Beginning and Ending					Entitle-ment	Inter-ruptible Ent.	Purchase Pool A	Purchase Pool B	MWD Ent.	
	No.	Structure	Mile								
14A	31	Check No. 31	256.14								
	32		258.61	Kern County Water Agency Wheeler Ridge-Maricopa - 3	411	411	1,988				
			260.44	Kern County Water Agency Wheeler Ridge-Maricopa - 4	1,988						
		Check No. 32	261.72								
			KCWA Reach 14A Subtotal:		2,514	2,514	0	0	0	0	
14B	33		264.42	Kern County Water Agency Wheeler Ridge-Maricopa - 5	4,598	439	1,131	1,444	2,715		
			266.91	Kern County Water Agency Wheeler Ridge-Maricopa - 6	1,131						
		Check No. 33	267.36								
	34		270.24	Kern County Water Agency Wheeler Ridge-Maricopa - 7	4,157	4,157					
		Check No. 34	271.27								
				Reach 14B Total:		9,886	5,727	0	1,444	2,715	0
14C	35		272.39	Kern County Water Agency Wheeler Ridge-Maricopa - 8	2,586	2,586	1,411				
			276.09	Kern County Water Agency Wheeler Ridge-Maricopa - 9	1,411						
			277.31	Kern County Water Agency Arvin-Edison	448						
				Reach 14C Total:							4,445
		Teerink Pumping Plant	278.13		197,466						
15A	36		279.02	Kern County Water Agency Wheeler Ridge-Maricopa - 9A	968	968	6,189	0	0	0	0
			280.06	Kern County Water Agency Wheeler Ridge-Maricopa - 10	6,189						
				Reach 15-A Total:							
		Chrisman Pumping Plant	280.36		184,344						
16A	37		282.06	Kern County Water Agency Wheeler Ridge-Maricopa - 11	0						
		Check No. 37	283.95								
	38		285.01	Kern County Water Agency Wheeler Ridge-Maricopa - 12	23	23	146				
			286.39	Kern County Water Agency Wheeler Ridge-Maricopa - 13A	146						
			287.06	Kern County Water Agency Wheeler Ridge-Maricopa - 13	0						
		Check No. 38	287.09								
	39		287.62	Kern County Water Agency Wheeler Ridge-Maricopa - 13B	217	217					
		Check No. 39	290.21								
	40		291.26	Kern County Water Agency Wheeler Ridge-Maricopa - 14	1,328	1,328	394	1,218			
			293.07	Kern County Water Agency Wheeler Ridge-Maricopa - 15	394						
			Kern County Water Agency Tehachapi Cummings CWD	1,218							
			K.C.W.A. Reach 16A Subtotal:		3,326						
17E		Edmonston Pumping Plant	293.45		181,434						

Table 23. Governor Edmund G. Brown California Aqueduct
 San Joaquin Field Division, Monthly Deliveries (Coastal Branch)

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries				
	Beginning and Ending					Entitlement	Interruptible Ent.	Purchase Pool A	Purchase Pool B	Exchange
	No.	Structure	Mile							
31A	C-1	Coastal Branch Control	0.02		15,582	1,595	8,377	843	1,585	0
		Las Perillas Pumping Plant	1.16		15,582					
	C-2		3.79	Green Valley Water District	0					
		Badger Hill Pumping Plant	4.27		15,582					
	C-3	Coastal Check No. 3	7.21							
	C-4		9.34	Castaic Lake WA (Devil's Den WD #1)	0					
		Coastal Check No. 4	9.34							
	C-5	Coastal Check No. 5	12.20							
	C-6		13.30	Kern County Water Agency Berrenda Mesa - 3	1,595					
			14.83	Kern County Water Agency Berrenda Mesa - 1	10,805					
		Kern County Water Agency Berrenda Mesa - PO		0						
Devil's Den Pumping Plant		14.86		3,018						
			K.C.W.A. Reach 31A Subtotal:	12,400	9,972	0	843	1,585	0	
			K.C.W.A. Total:	154,522	134,722	0	6,875	12,925	0	
33A	C-7	Bluestone Pumping Plant	19.05		2,834	2,576	469			
	C-8	Polonio Pass Pumping Plant	26.54		3,028					
	C-9	Tank Site 1	27.81	(CCWA) Polonio Pass Treatment Plant						
	C-10	Shandon T.O.	38.23	Santa Barbara County (CCWA)	2,576					
		Tank Site 2	58.63	Central Coast:	0					
	C-11	Chorro Valley T.O.	69.31	San Luis Obispo County (CCWA)	469					
34	C-12	Lopez T.O.	85.86	SLOCFC & WCD	0					
				CCWA Total:	3,045					
				3,045	0	0	0	0		
35	C-12	Guadalupe T.O.	102.70	SBCFC & WCD	0					
		Santa Maria T.O.	107.43	SBCFC & WCD	0					
		So. Cal. Water T.O.	109.20	SBCFC & WCD	0					
38	C-12			SBCFC & WCD Total:	0					
		Tank Site 5	115.42		0	0	0	0	0	

Table 24. Southern Field Division Plant Data

(in acre-feet)

July 2002

Date	West Branch					East Branch							
	Oso Pumping Plant	Warne Powerplant		Castaic Powerplant		Alamo Powerplant			Pearblossom Pumping Plant	Mojave Siphon Powerplant			Devil Canyon Powerplant Generation
		Generation	Leakage	Generation	Pumpback	Generation	Bypass Through Plant	Cottonwood Chute		Generation	Leakage	Bypass Flume	
1	3,175	3,103	0	6,701	4,679	2,359	0	89	1,861	2,531	0	0	2,230
2	2,891	3,135	0	7,374	3,562	2,283	0	105	2,005	1,691	0	0	2,266
3	3,110	3,104	0	7,267	2,814	1,891	0	0	1,477	1,471	0	0	2,081
4	3,110	2,991	0	112	5,081	2,701	0	21	2,294	2,357	0	0	2,286
5	2,778	2,942	0	8,533	1	2,872	0	59	2,565	2,394	0	0	2,402
6	3,558	3,051	0	5,458	2,758	2,854	0	156	2,746	2,867	0	0	2,462
7	3,930	3,142	0	2,725	3,030	3,578	0	114	3,342	3,169	0	0	2,510
8	3,008	3,182	0	6,640	4,691	3,338	0	115	2,996	2,911	0	0	2,720
9	3,292	3,229	0	8,184	3,831	3,261	0	84	2,809	2,987	0	0	2,693
10	3,251	3,246	0	9,192	1,993	3,030	0	179	2,911	2,718	0	0	2,611
11	3,252	3,272	0	7,823	2,493	3,305	0	271	2,846	3,384	0	0	2,613
12	3,003	2,947	0	9,129	3,729	3,480	0	238	3,013	2,680	0	0	2,964
13	320	859	0	2,320	3,712	499	0	0	667	1,037	0	0	1,633
14	3,754	3,219	0	539	4,387	3,361	0	140	3,296	2,946	0	0	2,637
15	2,973	2,889	0	7,729	3,140	2,513	0	66	2,078	2,122	0	0	2,656
16	2,755	3,173	0	9,495	4,527	2,662	0	81	2,305	2,513	0	0	2,788
17	2,613	3,036	0	4,752	2,824	2,910	0	193	2,539	2,506	0	0	2,740
18	2,613	2,992	0	9,245	3,508	2,957	0	18	2,593	2,610	0	0	2,587
19	2,622	2,992	0	9,153	4,018	2,853	0	64	2,524	2,463	0	0	2,767
20	3,197	2,911	0	1,560	3,863	2,969	0	73	2,649	2,650	0	0	2,548
21	3,574	2,111	0	2,771	4,193	3,694	0	179	3,342	2,952	0	0	2,581
22	2,620	2,945	0	6,877	3,234	2,958	0	0	2,670	3,055	0	0	2,666
23	2,678	2,998	0	7,843	3,273	2,821	0	23	2,612	2,666	0	0	2,791
24	2,772	2,888	0	6,895	2,137	2,903	0	198	2,716	2,678	0	0	2,450
25	2,976	2,854	0	6,979	2,881	2,892	0	123	2,531	2,584	0	0	2,303
26	2,802	2,660	0	8,312	798	2,749	0	101	2,362	2,244	0	0	2,801
27	2,883	2,608	0	712	2,947	3,229	0	209	3,063	3,133	0	0	2,783
28	2,712	2,587	0	111	3,019	3,515	0	232	3,187	3,175	0	0	2,865
29	1,877	2,077	0	6,697	4,337	2,832	0	0	2,453	2,688	0	0	2,857
30	1,940	2,148	0	5,195	0	2,815	0	182	2,775	2,712	0	0	2,948
31	1,946	2,263	0	5,235	2,044	2,775	0	200	2,726	2,741	0	0	2,773
Total	87,985	87,554	0	181,558	97,504	88,859	0	3,513	79,953	80,635	0	0	80,012

Table 25. Pyramid Lake
Daily Operation

Capacity: 171,200 ac-ft

(in acre-feet except as noted)

July 2002

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow			Computed Losses (-) And Gains (+)
				Project		Natural	Project		Natural	
				Castaic Powerplant Pumpback	Warne Powerplant	Stream Flow	Castaic Powerplant Generation	Deliveries 1/	To Piru Creek	
Jun 30	2570.38	160,250								
1	2570.99	161,009	759	4,679	3,103	6	6,701	0	50	-278
2	2570.21	160,039	-970	3,562	3,135	6	7,374	0	50	-249
3	2568.98	158,516	-1,523	2,814	3,104	6	7,267	0	50	-130
4	2575.39	166,553	8,037	5,081	2,991	7	112	0	50	120
5	2570.87	160,859	-5,694	1	2,942	7	8,533	1	50	-60
6	2571.06	161,096	237	2,758	3,051	8	5,458	0	50	-72
7	2573.75	164,472	3,376	3,030	3,142	7	2,725	0	49	-29
8	2574.44	165,346	874	4,691	3,182	7	6,640	0	50	-316
9	2573.51	164,169	-1,177	3,831	3,229	7	8,184	0	49	-11
10	2570.11	159,914	-4,255	1,993	3,246	7	9,192	0	50	-259
11	2568.48	157,900	-2,014	2,493	3,272	7	7,823	0	49	86
12	2566.31	155,244	-2,656	3,729	2,947	7	9,129	0	50	-160
13	2568.14	157,482	2,238	3,712	859	6	2,320	0	49	30
14	2573.75	164,472	6,990	4,387	3,219	6	539	0	50	-33
15	2572.21	162,534	-1,938	3,140	2,889	6	7,729	0	49	-195
16	2570.61	160,536	-1,998	4,527	3,173	7	9,495	2	50	-158
17	2571.35	161,458	922	2,824	3,036	7	4,752	1	49	-143
18	2568.99	158,529	-2,929	3,508	2,992	7	9,245	2	50	-139
19	2567.36	156,526	-2,003	4,018	2,992	7	9,153	3	49	185
20	2571.50	161,645	5,119	3,863	2,911	7	1,560	4	50	-48
21	2574.20	165,042	3,397	4,193	2,111	7	2,771	4	49	-90
22	2573.55	164,220	-822	3,234	2,945	7	6,877	5	50	-76
23	2572.02	162,296	-1,924	3,273	2,998	7	7,843	6	49	-304
24	2570.43	160,312	-1,984	2,137	2,888	7	6,895	7	50	-64
25	2568.94	158,467	-1,845	2,881	2,854	6	6,979	9	49	-549
26	2564.83	153,449	-5,018	798	2,660	7	8,312	9	50	-112
27	2568.73	158,208	4,759	2,947	2,608	7	712	20	49	-22
28	2572.97	163,489	5,281	3,019	2,587	7	111	20	50	-151
29	2572.66	163,099	-390	4,337	2,077	8	6,697	20	49	-46
30	2570.10	159,902	-3,197	0	2,148	8	5,195	20	50	-88
31	2569.21	158,800	-1,102	2,044	2,263	7	5,235	19	49	-113
Total			-1,450	97,504	87,554	213	181,558	152	1,537	-3,474

1/ Includes 3 AF recreation and 149 AF entitlement to United Water Conservation District.

Table 26. Elderberry Forebay

Daily Operation

(in acre-feet except as noted)

July 2002

Capacity: 32,476 ac-ft

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow			Computed Losses (-) And Gains (+)
				Castaic Powerplant Generation	Natural	Castaic Powerplant Pumpback	To Castaic Lake		
							Natural	Project	
Jun 30	1522.40	24,274							
1	1520.17	23,313	-961	6,701	0	4,679	0	2,983	0
2	1519.85	23,177	-136	7,374	0	3,562	0	3,948	0
3	1522.53	24,330	1,153	7,267	0	2,814	0	3,299	-1
4	1506.88	18,003	-6,327	112	0	5,081	0	1,358	0
5	1516.06	21,593	3,590	8,533	0	1	0	4,944	2
6	1513.43	20,528	-1,065	5,458	0	2,758	0	3,763	-2
7	1512.67	20,226	-302	2,725	0	3,030	0	0	3
8	1517.40	22,146	1,920	6,640	0	4,691	0	0	-29
9	1518.47	22,593	447	8,184	0	3,831	0	3,907	1
10	1526.02	25,870	3,277	9,192	0	1,993	0	3,923	1
11	1528.93	27,188	1,318	7,823	0	2,493	0	4,010	-2
12	1531.42	28,342	1,154	9,129	0	3,729	0	4,246	0
13	1520.79	23,578	-4,764	2,320	0	3,712	0	3,371	-1
14	1511.26	19,672	-3,906	539	0	4,387	0	0	-58
15	1522.58	24,352	4,680	7,729	0	3,140	0	0	91
16	1525.11	25,464	1,112	9,495	0	4,527	0	3,855	-1
17	1520.92	23,634	-1,830	4,752	0	2,824	0	3,757	-1
18	1525.29	25,544	1,910	9,245	0	3,508	0	3,828	1
19	1527.59	26,577	1,033	9,153	0	4,018	0	4,103	1
20	1514.02	20,765	-5,812	1,560	0	3,863	0	3,511	2
21	1510.40	19,338	-1,427	2,771	0	4,193	0	0	-5
22	1519.35	22,964	3,626	6,877	0	3,234	0	0	-17
23	1521.08	23,703	739	7,843	0	3,273	0	3,831	0
24	1523.16	24,605	902	6,895	0	2,137	0	3,856	0
25	1524.03	24,987	382	6,979	0	2,881	0	3,719	3
26	1532.06	28,642	3,655	8,312	0	798	0	3,858	-1
27	1518.50	22,606	-6,036	712	0	2,947	0	3,800	-1
28	1511.35	19,707	-2,899	111	0	3,019	0	0	9
29	1517.18	22,055	2,348	6,697	0	4,337	0	0	-12
30	1523.45	24,732	2,677	5,195	0	0	0	2,519	1
31	1525.21	25,509	777	5,235		2,044	0	2,414	0
Total			1,235	181,558	0	97,504	0	82,803	-16

Table 27. Castaic Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 323,699 ac-ft

July 2002

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow		Computed Losses (-) And Gains (+)
				From Elderberry Forebay		Natural	Deliveries	Released To Castaic Lagoon	
				Natural	Project				
Jun 30	1506.12	304,188							
1	1506.06	304,071	-117	0	2,983	0	2,080	99	-921
2	1506.93	305,956	1,885	0	3,948	0	2,246	101	284
3	1507.31	306,778	822	0	3,299	0	2,212	90	-175
4	1506.97	306,042	-736	0	1,358	0	2,200	0	106
5	1508.18	308,666	2,624	0	4,944	0	2,238	0	-82
6	1508.90	310,233	1,567	0	3,763	0	2,117	0	-79
7	1507.97	308,209	-2,024	0	0	0	2,058	0	34
8	1506.99	306,085	-2,124	0	0	0	2,141	0	17
9	1507.71	307,645	1,560	0	3,907	0	2,226	0	-121
10	1508.31	308,948	1,303	0	3,923	0	2,460	0	-160
11	1509.02	310,494	1,546	0	4,010	0	2,378	0	-86
12	1509.80	312,198	1,704	0	4,246	0	2,397	0	-145
13	1510.25	313,184	986	0	3,371	0	2,437	0	52
14	1509.14	310,756	-2,428	0	0	0	2,411	0	-17
15	1508.05	308,383	-2,373	0	0	0	2,326	0	-47
16	1508.70	309,797	1,414	0	3,855	0	2,382	0	-59
17	1509.39	311,302	1,505	0	3,757	0	2,336	0	84
18	1509.97	312,571	1,269	0	3,828	0	2,391	0	-168
19	1510.76	314,303	1,732	0	4,103	0	2,281	0	-90
20	1511.30	315,491	1,188	0	3,511	0	2,320	0	-3
21	1510.34	313,381	-2,110	0	0	0	2,136	0	26
22	1509.34	311,193	-2,188	0	0	0	2,104	0	-84
23	1510.18	313,031	1,838	0	3,831	0	2,154	0	161
24	1510.81	314,413	1,382	0	3,856	0	2,301	0	-173
25	1511.59	316,130	1,717	0	3,719	0	2,302	0	300
26	1512.19	317,454	1,324	0	3,858	0	2,240	0	-294
27	1512.94	319,114	1,660	0	3,800	0	2,131	60	51
28	1512.01	317,056	-2,058	0	0	0	1,939	101	-18
29	1511.08	315,007	-2,049	0	0	0	1,967	50	-32
30	1511.23	315,337	330	0	2,519	0	2,172	0	-17
31	1511.31	315,513	176	0	2,414	0	2,126	0	-112
Total			11,325	0	82,803	0	69,209	501	-1,768

Table 28. Governor Edmund G. Brown California Aqueduct
Southern Field Division, Monthly Deliveries (West Branch)

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries									
	Beginning and Ending					Entitlement	Rec.	Local	Purchase Pool A	Purchase Pool B	Flex Payback				
	No.	Structure	Mile												
29A	42	Oso Pumping Plant	1.49		87,985										
29F	W2	Quail Lake	5.02	Antelope Valley-East Kern Water Agency	Removed										
		Quail Lake Embankment	7.82	Antelope Valley-East Kern Water Agency	Stub										
29G		Warne Power Plant	14.07		87,554										
29H	W3	Pyramid Lake		Calif. State Park Pyramid Recreation	3	149	3								
			14.10	United Water Conservation Dist.	149										
		Pyramid Dam	17.10	Piru Creek Fish Enhancement	0										
29J	W4	Castaic Power Plant	25.82	(97,504 AF pumpback)	181,558										
		Elderberry Forebay													
30 1/	W5	Castaic Lake		Calif. State Park Castaic Lake Recreation	45	12,461	45								
			31.47												
		Castaic Lake Outlet	31.55	MWD - 78"	12,461										12,461
				MWD - 132"	51,403										51,403
				Castaic Lake WA - T1	2,195										2,195
				Castaic Lake WA	2,951										2,951
				United Water Conservation Dist.	0										0
				MWD - Ventura County FCD	154										154
				LA Co. Parks & Recreation	0										0
Releases to Lagoon	501		501												
Reach 30 Subtotal:					69,209	69,164	45	0	0	0	7,294				
	W6	Castaic Lagoon		Recreation to Lagoon	546		546								
		Castaic Lagoon Outlet	31.87												

1/ Reach 30 actually terminates at mile 31.50. It is shown here as including the outlet works at mile 31.55. All deliveries from the outlet works and from the Lagoon are billed to Reach 30.

Table 29. Silverwood Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 74,970 ac-ft

July 2002

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow					Computed Losses (-) And Gains (+)	Las Flores Ranch Exchange 1/	
				Mojave Siphon Power-plant	Mojave Bypass Flume	Natural Stream Flow	Project			Del. To Mojave W.A.	Natural To Mojave River			
							Delivered to CLAWA	Rec.	San Bernardino Tunnel					
Jun 30	3352.58	72,619												
1	3352.57	72,610	-9	2,531	0	0	9	0	2,230	0	1	-300	0	
2	3351.93	72,006	-604	1,691	0	0	9	0	2,266	0	0	-20	0	
3	3351.31	71,416	-591	1,471	0	0	9	1	2,081	0	0	29	0	
4	3351.38	71,482	67	2,357	0	0	9	0	2,286	0	0	5	0	
5	3351.26	71,368	-114	2,394	0	0	9	0	2,402	0	1	-96	0	
6	3351.71	71,796	428	2,867	0	0	9	0	2,462	0	0	32	0	
7	3352.33	72,389	592	3,169	0	0	10	0	2,510	0	0	-57	0	
8	3352.56	72,609	220	2,911	0	0	10	0	2,720	0	1	40	0	
9	3352.83	72,868	259	2,987	0	0	10	0	2,693	0	0	-25	0	
10	3352.91	72,945	77	2,718	0	0	10	0	2,611	0	0	-20	0	
11	3353.69	73,697	752	3,384	0	0	10	1	2,613	0	1	-7	0	
12	3353.39	73,407	-290	2,680	0	0	10	2	2,964	0	0	6	0	
13	3352.79	72,830	-578	1,037	0	0	10	2	1,633	0	0	30	0	
14	3353.06	73,089	260	2,946	0	0	10	0	2,637	0	1	-38	0	
15	3352.55	72,599	-490	2,122	0	0	10	1	2,656	0	0	55	0	
16	3352.24	72,302	-297	2,513	0	0	10	0	2,788	0	0	-12	0	
17	3351.93	72,006	-296	2,506	0	0	10	0	2,740	0	1	-51	0	
18	3351.95	72,025	19	2,610	0	0	10	1	2,587	0	0	7	0	
19	3351.65	71,739	-286	2,463	0	0	9	0	2,767	0	0	27	0	
20	3351.73	71,815	76	2,650	0	0	10	0	2,548	0	1	-15	0	
21	3352.11	72,178	363	2,952	0	0	9	0	2,581	0	0	1	0	
22	3352.40	72,456	278	3,055	0	0	10	0	2,666	0	0	-101	0	
23	3352.28	72,341	-115	2,666	0	0	9	0	2,791	0	1	20	0	
24	3352.52	72,571	230	2,678	0	0	9	0	2,450	0	0	11	0	
25	3352.78	72,820	250	2,584	0	0	10	0	2,303	0	0	-21	0	
26	3352.16	72,226	-594	2,244	0	0	9	1	2,801	0	1	-26	0	
27	3352.66	72,705	479	3,133	0	0	9	0	2,783	0	0	138	0	
28	3352.77	72,810	106	3,175	0	0	9	1	2,865	0	1	-193	0	
29	3352.62	72,666	-144	2,688	0	0	9	1	2,857	0	0	35	0	
30	3352.36	72,417	-249	2,712	0	0	10	0	2,948	0	1	-2	0	
31	3352.32	72,379	-38	2,741	0	0	10	1	2,773	0	0	5	0	
Total			-240	80,635	0	0	296	12	80,012	0	11	-544	0	

1/ Project water delivered from Mojave Siphon in exchange for like amount of Natural Streamflow.

Table 30. Lake Perris

Daily Operation

(in acre-feet except as noted)

Capacity: 131,452 ac-ft

July 2002

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow 1/	Outflow 2/	Computed Losses (-) Gains (+) 1/
Jun 30	1583.24	116,101				
1	1583.24	116,092	-9		9	
2	1583.22	116,066	-26		9	
3	1583.20	116,021	-45		8	
4	1583.19	115,999	-22		10	
5	1583.19	115,999	0		9	
6	1583.19	115,999	0		8	
7	1583.21	116,044	45		9	
8	1583.11	115,822	-222		10	
9	1583.10	115,800	-22		9	
10	1583.15	115,911	111		9	
11	1583.12	115,844	-67		9	
12	1583.26	116,154	310		154	
13	1582.79	115,114	-1,040		629	
14	1582.91	115,380	266		10	
15	1582.84	115,225	-155		8	
16	1582.80	115,136	-89		9	
17	1582.77	115,070	-66		9	
18	1582.72	114,960	-110		8	
19	1582.83	115,203	243		10	
20	1582.82	115,181	-22		9	
21	1582.82	115,181	0		9	
22	1582.82	115,181	0		9	
23	1582.87	115,291	110		8	
24	1582.85	115,247	-44		9	
25	1582.92	115,402	155		9	
26	1582.87	115,291	-111		9	
27	1582.92	115,402	111		8	
28	1583.16	115,933	531		209	
29	1583.13	115,866	-67		29	
30	1583.20	116,021	155		9	
31	1583.18	115,977	-44		9	
Total			-124	3,362	1,262	-2,224

1/ Readings are not taken on a daily basis. End of month only.

2/ Includes deliveries to MWD from Reach 28J and recreation water to California State Park at lake Perris.

Table 31a. Governor Edmund G. Brown California Aqueduct
Southern Field Division, Monthly Deliveries (East Branch)

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries									
	Beginning and Ending					Entitlement	Rec.	Transfer 1/	Purchase Pool A	Purchase Pool B	Dry Year Purchase				
	No.	Structure	Mile												
17E	40	Edmonston Pumping Plant	293.45	Kern County Water Agency Tej.-Cas	181,434										
	41		298.65		Stub										
	17F	Check No. 41	303.41												
	18A	Check No. 42	304.99												
19	43	Alamo Powerplant	305.73	(Does not include 3,513 AF flow down Cottonwood Chute)	88,859	68									
			308.05	Antelope Valley-East Kern WA	0										
		Check No. 43	309.70												
	44		311.84	LADWP Connection	0										
			313.50	AVEK 245th Street West	68										
		Check No. 44	314.81												
	45		314.93	AVEK 235th Street West	0										
			315.57	AVEK 225th Street West	0										
	46		323.19	Antelope Valley-East Kern WA Fairmont	2,905						2,749		156		
		Check No. 46	323.84												
Reach 19 Total:					2,973	2,817	0	156	0	0					
20A	47	Check No. 47	326.77			74									
	48		326.91	Antelope Valley-East Kern WA Willow Springs Siphon	74										
			329.65	Antelope Valley-East Kern WA 120th Street West	Re-removed										
		Check No. 48	330.82												
		Check No. 49	335.93												
50			336.73	AVEK WA - Quartz Hill (Wheeled for Palmdale WD)	0	3,742		1,008							
				339.68	Antelope Valley-East Kern WA						4,750				
					341.51						Antelope Valley-East Kern WA	273			
		Check No. 50	341.51			273									
20B	51	Check No. 51	342.07			230									
	52		342.80	Antelope Valley-East Kern WA 30th Street West	Not in Use										
			Check No. 52	343.74											
	53			346.98	PWD Palmdale						2,448	81		285	2,082
				348.14	Antelope Valley-East Kern WA Acton Treatment Plant	230									
		Check No. 53	348.17												
21	54	Check No. 54	350.25												
		Check No. 55	352.70												
		Check No. 56	354.76												
			354.97	Littlerock Creek I.D.	0										
22A	57	Check No. 57	356.93			45									
	58		357.60	Antelope Valley-East Kern WA	45										
			357.72	Antelope Valley-East Kern WA 96th Street East	72										
		359.82	Antelope Valley-East Kern WA East Side Treatment Plant	648	648										

1/ AVEK transferred this water to Mojave Water Agency.

Table 31b. Governor Edmund G. Brown California Aqueduct
Southern Field Division, Monthly Deliveries (East Branch, Continued)

(In acre-feet)

July 2002

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries							
	Beginning and Ending					Entitle-ment	Rec.	Purchase Pool A	Purchase Pool B	Flex Payback	Local		
	No.	Structure	Mile										
22B	58	Pearblossom Pumping Plant	360.61		79,953	146							
	59	Check No. 59	366.09	Antelope Valley-East Kern WA	146								
			366.50										
	60	Check No. 60	373.94										
	61	Check No. 61	379.00										
	62	Check No. 62	384.26										
	63	Check No. 63	389.20	Mojave Water Agency Mojave River	11	11							
			395.10										
66		401.10	Mojave Water Agency Morongo 24" and 42" Mojave Water Agency Hesperia	85	85								
				0									
23		403.41	Mojave Siphon Las Flores Ranch	0									
				80,635									
24	67	407.65	Silverwood Lake Crestline Lake Arrowhead Water Agency Calif. State Park Silverwood Agency (Rec.)	296	296								
				12									
25		411.46	San Bernardino Tunnel San Gorgonio Pass Water Agency	80,012									
				0									
26A	68	412.73	Devil Canyon Afterbay Control Structures	80,012	36,146	36,146							
				36,146									
				3,305							2,524	271	510
				2,318							2,318		
				2,006							1,532	165	309
				2,405							2,405		
				549							549		
0													
28G	69	425.46											
28H		Santa Ana Valley Pipeline	433.06	MWD-SC Box Springs	10,911	10,911							
			440.05	MWD-SC Perris Bypass Pipeline	20,060	20,060							
28J	Lake Perris	442.00	MWD-SC 18"	280	280								
				443.44	MWD-SC 54"	1,696	360			1,336			
						MWD-SC 78"	572	572					
			Calif. State Park Lake Perris Recreation	50			50						
			MWD Total:		139,853	138,598	0	436	819	8,630	0		

Table 32. Water Quality At Selected SWP Locations

July 2002

Constituent	Units	Thermalito Afterbay At Outlet	North Bay Aqueduct Barker Slough Pumping Plant	Banks Pumping Plant	Delta Mendota Canal At McCabe Rd.	California Aqueduct				Devil Canyon Afterbay Near San Bernardino
						O'Neill Forebay Outlet (Check 13)	Kettleman City (Check 21)	Near Hwy 119 (Check 29)	Tehachapi Afterbay (Check 41)	
Alkalinity	mg/l as CaCO ₃	42	75	60	65	75	71	76	77	83
Antimony	mg/l	NR	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/l	<0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Beryllium	mg/l	NR	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Boron	mg/l	<0.1	0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	0.2
Bromide	mg/l	NR	0.04	0.14	0.11	0.17	0.14	0.16	0.15	0.20
Calcium	mg/l	9	13	14	15	19	17	18	20	22
Carbon - Dissolved Organic	mg/l as C	NR	3	2	2	3	3	3	3	3
Carbon - Total Organic	mg/l as C	NR	5	3	3	3	3	4	4	4
Chloride	mg/l	<1	11	43	31	55	43	52	50	69
Chromium	mg/l	<0.001	0.001	<0.001	0.001	0.002	0.002	0.002	0.002	0.002
Copper	mg/l	<0.001	0.001	0.004	0.002	0.003	0.002	0.003	0.003	0.009
Fluoride	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hardness	mg/l as CaCO ₃	39	70	72	75	97	84	90	99	113
Iron	mg/l	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium	mg/l	4	9	9	9	12	10	11	12	14
Manganese	mg/l	<0.005	0.006	0.008	<0.005	0.005	<0.005	<0.005	<0.005	<0.005
Nitrate + Nitrite	mg/l as N	0.01	0.35	0.28	NR	NR	0.42	NR	0.58	0.73
Phosphorus-Ortho	mg/l as P	<0.01	0.08	0.07	NR	NR	0.08	NR	0.09	0.09
Phosphorus-Total	mg/l	<0.01	0.18	0.10	NR	NR	0.11	NR	0.13	0.12
Selenium	mg/l	NR	<0.001	<0.001	NR	NR	NR	0.001	NR	NR
Sodium	mg/l	4	16	31	26	42	33	39	41	51
Specific Conductance	µS/cm	91	216	305	273	399	340	415	382	479
Sulfate	mg/l	2	12	17	18	30	25	31	30	42
Total Dissolved Solids	mg/l	57	127	181	167	258	217	245	227	286
Turbidity	NTU	2	79	16	21	9	9	11	17	2
Zinc	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.011	<0.005

mg/l milligrams per liter
 µg/l micrograms per liter
 µS/cm microSiemens per centimeter
 NR - Not Reported
 NTU - nephelometric turbidity units

Table 33. Water Quality At Selected Delta Stations

July 2002

Date	Tides (feet above mean sea level)		Flow In CFS			Electrical Conductivity in milliSiemens/cm									CI in mg/l
	(Antioch) Daily Mean		Net Delta Outflow Index		Rio Vista	Antioch	Chippis island	Emmaton		Jersey Point		Clifton Court	Cache Slough	Delta Mendota Canal	Contra Costa Canal Intake
			Mean Daily	Monthly Average				md	14dm	md	14dm				
	Hi	Half			md	md	md	md	14dm	md	14dm	md	md	md	md
1	0.00	0.00	5,193	5,193	8,836	0.00	0.00	0.31	0.47	0.31	0.35	0.29	0.50	0.30	34
2	0.00	0.00	4,371	4,782	8,492	0.00	0.00	0.33	0.46	0.36	0.35	0.29	0.43	0.31	32
3	0.00	0.00	3,712	4,425	8,889	0.00	0.00	0.31	0.46	0.38	0.36	0.30	0.41	0.31	32
4	0.00	0.00	4,666	4,486	8,929	0.00	0.00	0.26	0.45	0.39	0.37	0.00	0.44	0.29	31
5	3.16	1.52	4,586	4,506	8,838	1.16	0.00	0.29	0.44	0.43	0.37	0.28	0.42	0.29	31
6	3.18	1.59	4,580	4,518	9,023	1.68	0.00	0.37	0.44	0.49	0.38	0.28	0.45	0.29	31
7	3.23	1.11	5,088	4,599	9,318	1.92	0.00	0.47	0.43	0.53	0.40	0.28	0.50	0.29	34
8	3.42	1.13	5,368	4,696	9,683	1.83	0.00	0.50	0.43	0.53	0.41	0.27	0.56	0.29	34
9	3.41	1.16	5,443	4,779	9,477	1.89	6.48	0.50	0.43	0.56	0.42	0.27	0.55	0.28	35
10	3.66	1.36	4,512	4,752	9,530	2.24	7.25	0.63	0.42	0.65	0.44	0.27	0.51	0.27	39
11	3.95	1.67	4,544	4,733	9,797	2.73	8.65	0.77	0.44	0.78	0.46	0.27	0.45	0.26	39
12	3.91	0.00	4,317	4,698	10,100	2.82	8.90	0.88	0.46	0.88	0.50	0.26	0.46	0.00	38
13	3.61	0.00	4,778	4,704	10,024	2.53	8.50	0.81	0.48	0.84	0.53	0.26	0.48	0.00	39
14	3.32	0.00	4,660	4,701	10,146	2.55	8.25	0.66	0.51	0.82	0.57	0.27	0.52	0.00	41
15	2.92	0.00	4,873	4,713	10,277	2.41	7.75	0.52	0.52	0.79	0.60	0.28	0.57	0.00	50
16	2.89	1.18	5,597	4,768	10,370	2.21	7.21	0.42	0.53	0.78	0.63	0.29	0.57	0.30	55
17	3.05	1.08	5,462	4,809	10,435	2.20	7.05	0.36	0.53	0.78	0.66	0.30	0.55	0.30	62
18	3.30	1.12	5,426	4,843	10,590	2.27	7.06	0.42	0.54	0.83	0.69	0.29	0.53	0.30	79
19	3.55	1.30	5,517	4,879	10,495	2.46	7.30	0.51	0.56	0.91	0.73	0.32	0.48	0.30	80
20	3.55	1.56	5,472	4,908	10,131	2.90	8.95	0.67	0.58	1.04	0.77	0.30	0.42	0.30	83
21	3.97	1.84	4,263	4,878	10,181	3.46	9.94	1.14	0.63	1.22	0.81	0.30	0.38	0.30	86
22	4.00	1.70	4,385	4,855	10,736	3.40	9.86	1.22	0.68	1.17	0.86	0.30	0.44	0.30	90
23	3.88	1.61	5,281	4,874	10,983	3.33	9.48	1.15	0.69	1.15	0.90	0.30	0.51	0.33	94
24	3.68	1.49	5,643	4,906	11,236	3.15	8.88	0.35	0.70	1.13	0.94	0.30	0.51	0.33	94
25	3.51	1.38	5,933	4,947	11,399	2.89	8.25	0.70	0.69	1.09	0.96	0.30	0.49	0.35	97
26	3.39	1.49	6,161	4,993	11,269	2.69	8.12	0.64	0.67	1.08	0.97	0.30	0.46	0.38	98
27	3.41	1.66	6,054	5,033	11,050	2.74	8.47	0.64	0.66	1.15	1.00	0.30	0.47	0.39	97
28	3.24	1.67	5,826	5,061	10,915	2.82	8.59	0.65	0.66	1.15	1.02	0.30	0.52	0.40	97
29	2.54	1.30	5,772	5,086	11,054	2.26	7.06	0.41	0.65	1.01	1.04	0.30	0.58	0.39	96
30	2.65	1.20	6,742	5,141	10,630	1.90	6.30	0.32	0.64	0.96	1.05	0.30	0.58	0.38	92
31	2.78	1.20	6,783	5,194	10,365	1.97	6.30	0.30	0.64	0.94	1.06	0.30	0.56	0.37	98

38

Clifton Court Cl(mg/l)=200X EC - 25
 N.R. = No Record.
 N.C. = Not computed due to insufficient data.

e = Estimated

f = Excess Delta conditions with fish concerns.

r = Excess delta conditions with export/inflow ratio concerns.

s = Balanced water conditions with storage withdrawals.

dm = Daily Mean

md = Mean Daily

Table 34. Pesticides, Herbicides, and Other Organic Substances Detected In the SWP

July 2002

Sampling Location	Sample Date 1/	Chemical Detected	Concentration µg/l 2/
North Bay Aqueduct At Barker Slough Pumping Plant	June 19, 2002	None Detected	
California Aqueduct At Banks Pumping Plant	June 19, 2002	None Detected	
O'Niell Forebay Outlet Check 13	June 19, 2002 June 19, 2002	2,4-Dichlorophenylacetic acid (DCAA) Simazine	1.3 0.02
Delta Mendota Canal At McCabe Road	June 19, 2002 June 19, 2002 June 19, 2002 June 19, 2002	2,4-Dichlorophenylacetic acid (DCAA) 2,4-D Atrazine Simazine	1.27 0.43 0.02 0.02
California Aqueduct Near Kettleman City (Check 21)	June 18, 2002 June 18, 2002	2,4-Dichlorophenylacetic acid (DCAA) Simazine	1.33 0.02
California Aqueduct At Near Highway 119 (Check 29)	June 19, 2002 June 19, 2002	2,4-Dichlorophenylacetic acid (DCAA) Simazine	1.33 0.04
Devil Canyon Power Plant At Entrance To Santa Ana Pipeline	June 19, 2002	None Detected	

1/ Locations are normally sampled during March, June, and September. Monthly reports will include data for the month in which samples were most recently taken.

2/ Micrograms per liter.

Table 35. Oroville and Delta Field Divisions Energy Data

(in kWh)

July 2002

Date	Oroville Thermalito Complex		Barker Slough Pumping Plant	Cordelia Pumping Plant Load	Banks Pumping Plant		South Bay Pumping Plant Load	Del Valle Pumping Plant Load
	Generation	Load			Total Load	SWP Load		
1	10,259,136	0	50,680	37,324	3,003,840	2,514,840	496,940	252
2	10,959,840	0	45,003	33,236	3,144,960	2,655,960	527,555	216
3	9,748,512	0	39,536	29,736	2,685,312	2,109,312	526,870	2,823
4	9,959,616	0	38,157	30,184	2,784,000	2,200,000	526,805	140
5	10,764,288	0	41,853	31,115	2,759,232	2,319,232	517,265	131
6	11,166,624	0	44,233	33,663	2,613,312	2,173,312	501,765	135
7	11,399,616	0	36,792	28,616	2,855,040	2,423,040	501,135	135
8	11,291,904	0	41,020	33,481	2,665,536	2,225,536	505,070	153
9	11,928,096	0	49,693	37,891	2,939,520	2,499,520	505,930	184
10	11,299,104	288	62,615	48,363	3,225,984	2,401,984	491,005	202
11	11,152,800	0	63,826	48,636	3,244,416	2,420,416	438,415	194
12	12,527,712	0	56,924	38,570	3,443,328	3,091,328	457,230	191
13	6,940,224	0	46,186	37,002	3,667,200	3,315,200	436,710	185
14	6,963,264	0	50,001	38,353	3,543,744	3,191,744	427,480	166
15	11,074,752	0	47,607	38,136	3,541,824	3,189,824	448,205	147
16	11,924,640	0	39,830	34,062	3,611,136	3,259,136	503,850	154
17	11,934,720	0	40,740	32,914	3,980,160	3,628,160	528,585	157
18	10,534,176	0	42,126	32,669	3,575,808	3,223,808	519,610	163
19	10,003,968	0	43,659	34,741	3,514,752	3,162,752	528,495	170
20	7,581,312	0	45,864	33,572	3,386,112	3,034,112	527,895	170
21	5,920,416	0	48,279	34,384	4,056,192	3,704,192	528,030	156
22	8,743,104	0	35,000	26,733	3,935,616	3,583,616	528,695	153
23	10,046,592	0	39,305	34,181	3,938,880	3,586,880	528,840	150
24	9,950,112	0	40,243	34,230	3,936,960	3,584,960	528,960	163
25	10,333,728	0	45,129	35,350	3,945,408	3,593,408	528,580	290
26	10,782,432	0	47,089	36,323	3,934,080	3,582,080	529,210	277
27	8,776,800	0	47,481	35,805	3,940,992	3,588,992	528,550	300
28	5,823,936	0	43,204	31,843	3,913,536	3,561,536	527,965	294
29	8,715,744	0	36,449	27,930	4,003,776	3,651,776	529,635	266
30	9,780,480	0	39,424	33,250	3,939,648	3,587,648	528,715	249
31	9,367,776	0	35,385	27,118	4,270,656	3,918,656	529,520	262
Total	307,655,424	288	1,383,333	1,069,411	108,000,960	94,982,960	15,733,515	8,628

Table 36. San Luis Field Division Energy Data

(in kWh)

July 2002

Date	Dos Amigos Pumping Plant		Gianelli Pumping-Generating Plant			
	Total Load	SWP Load 1/	Total Generation	SWP Generation 1/	Total Load	SWP Load 1/
1	2,252,592	1,529,592	1,691,136	1,367,136	7,200	7,200
2	2,575,008	1,852,008	1,916,640	1,268,640	9,504	9,504
3	2,263,536	1,540,536	1,287,072	639,072	10,368	10,368
4	2,607,696	1,887,696	1,283,616	797,616	5,472	5,472
5	2,510,352	1,787,352	3,222,144	2,412,144	1,728	1,728
6	2,661,984	1,938,984	1,826,496	1,016,496	7,200	7,200
7	2,930,688	2,210,688	1,247,904	437,904	5,760	5,760
8	2,512,512	1,789,512	2,989,440	2,179,440	864	864
9	2,575,872	1,852,872	1,952,640	1,142,640	6,624	6,624
10	2,720,736	1,997,736	1,740,096	1,380,096	6,912	6,912
11	2,805,264	2,082,264	1,592,064	1,592,064	383,904	383,904
12	2,778,768	2,055,768	1,704,960	1,704,960	9,792	9,792
13	2,027,952	1,304,952	0	0	18,432	18,432
14	3,147,120	2,427,120	976,032	976,032	8,064	8,064
15	2,612,880	1,730,880	1,836,864	1,116,864	6,624	6,624
16	2,444,976	1,562,976	1,649,376	929,376	6,624	6,624
17	2,538,144	1,656,144	1,792,224	424,224	281,664	281,664
18	2,427,408	1,545,408	1,012,032	148,032	6,624	6,624
19	2,475,360	1,593,360	897,984	237,984	6,048	6,048
20	2,634,480	1,752,480	1,292,544	302,544	6,624	6,624
21	2,730,240	1,842,240	1,052,352	62,352	6,048	6,048
22	2,032,272	1,150,272	686,880	26,880	6,048	6,048
23	2,411,856	1,529,856	1,034,784	44,784	578,592	578,592
24	2,427,552	1,545,552	969,408	177,408	902,880	902,880
25	2,271,168	1,389,168	825,984	33,984	866,592	866,592
26	2,280,096	1,398,096	833,760	41,760	1,010,304	1,010,304
27	2,340,720	1,458,720	830,016	38,016	8,352	8,352
28	2,376,720	1,488,720	0	0	16,704	16,704
29	1,915,344	1,033,344	887,040	29,040	7,776	7,776
30	2,092,176	1,210,176	862,848	4,848	7,776	7,776
31	2,308,176	1,426,176	279,936	-6,064	7,776	7,776
Total	76,689,648	51,570,648	40,174,272	20,526,272	4,214,880	4,214,880

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

Table 37. San Joaquin Field Division Pumping Plant Energy Load Data

(in kWh)

July 2002

Date	Coastal Branch					California Aqueduct			
	Las Perillas	Badger Hill	Devils Den	Bluestone	Polonio	Buena Vista	Teerink	Chrisman	Edmonston
1	36,530	97,624	71,442	67,896	70,794	1,490,904	1,580,328	3,422,592	12,566,160
2	38,714	102,648	67,572	64,980	67,518	1,494,504	1,533,240	3,319,200	11,977,200
3	36,780	97,656	68,616	65,862	68,580	1,422,792	1,452,456	3,112,416	11,042,640
4	46,306	125,736	80,334	76,932	79,182	1,594,080	1,646,496	3,575,232	13,132,080
5	35,806	95,760	70,380	67,878	69,930	1,517,184	1,631,088	3,592,224	12,927,600
6	44,756	119,480	56,340	52,776	56,142	1,760,400	1,821,096	4,000,896	14,670,720
7	44,140	117,048	73,836	71,190	76,608	2,005,704	2,140,344	4,741,056	17,375,040
8	33,438	88,312	56,574	53,118	55,620	1,717,560	1,789,632	3,965,472	14,546,880
9	34,272	93,104	62,784	59,976	63,108	1,809,648	1,908,864	4,116,384	14,891,040
10	40,172	105,688	75,006	71,694	75,312	1,803,888	1,880,136	4,069,440	14,726,880
11	40,904	107,056	86,004	83,106	84,510	1,880,136	1,968,696	4,295,520	15,495,120
12	40,662	105,880	77,742	75,852	77,472	1,820,592	1,910,448	4,158,720	15,217,920
13	47,820	127,880	68,634	65,736	68,256	512,352	373,320	605,952	1,836,720
14	43,096	117,952	94,086	89,442	93,528	1,878,192	2,013,624	4,478,400	16,619,040
15	32,894	89,936	49,158	46,890	49,896	1,588,032	1,612,584	3,461,472	12,512,880
16	37,616	101,288	71,442	68,652	71,226	1,567,008	1,596,960	3,437,568	12,479,760
17	36,586	97,496	68,166	64,872	67,968	1,617,336	1,645,776	3,573,504	12,921,120
18	33,928	91,200	61,506	59,724	62,406	1,559,952	1,614,960	3,497,472	12,635,280
19	38,418	102,480	69,102	66,042	68,454	1,593,216	1,610,136	3,484,512	12,560,400
20	48,702	130,616	74,538	72,144	73,800	1,685,232	1,772,208	3,910,176	14,174,640
21	45,924	122,336	80,280	74,610	80,424	1,915,560	2,041,632	4,542,336	16,782,480
22	32,122	84,424	52,398	50,418	52,722	1,496,376	1,572,984	3,456,000	12,586,320
23	36,542	97,128	59,490	57,222	59,778	1,579,392	1,594,080	3,489,120	12,574,080
24	38,628	102,992	71,586	68,220	71,190	1,598,544	1,650,456	3,652,128	13,288,320
25	37,990	101,216	76,014	73,440	75,762	1,641,312	1,705,608	3,725,856	13,578,480
26	38,420	105,664	72,540	70,074	71,496	1,567,224	1,634,184	3,547,872	12,868,560
27	45,546	122,808	64,260	60,858	64,584	1,694,304	1,761,408	3,900,960	14,209,200
28	44,836	119,192	82,206	78,804	82,962	1,685,592	1,804,824	4,028,256	14,799,600
29	32,600	86,248	53,964	52,416	55,764	1,259,784	1,346,184	2,956,608	10,572,480
30	37,420	101,200	70,794	66,222	68,526	1,407,528	1,438,920	3,097,152	11,240,640
31	35,496	98,448	68,868	66,240	68,472	1,409,544	1,430,928	3,083,040	11,123,280
Total	1,217,064	3,256,496	2,155,662	2,063,286	2,151,990	49,573,872	51,483,600	112,297,536	407,932,560

Table 38. Southern Field Division Energy Data

July 2002

(in kWh)

Date	West Branch			East Branch			
	Oso Pumping Plant Load	Warne Powerplant Generation	Castaic Powerplant SWP Generation	Alamo Powerplant Generation	Pearblossom Pumping Plant Load	Devil Canyon Powerplant Generation	Mojave Siphon Powerplant Generation
1	832,664	1,731,096	2,880,000	274,736	1,243,716	2,705,856	198,786
2	757,120	1,744,776	2,880,000	267,652	1,337,844	2,751,840	120,561
3	815,304	1,728,360	2,880,000	220,528	987,084	2,551,872	107,646
4	815,192	1,681,848	2,880,000	325,108	1,525,152	2,801,376	182,910
5	730,296	1,662,336	2,880,000	341,376	1,709,976	2,925,792	187,047
6	934,024	1,713,384	2,880,000	335,524	1,834,116	3,008,928	231,630
7	1,029,504	1,748,952	2,880,000	422,240	2,225,088	3,058,368	239,085
8	793,408	1,759,392	2,760,000	394,884	1,993,572	3,291,552	231,294
9	868,560	1,785,240	2,760,000	384,860	1,869,912	3,237,408	234,339
10	853,888	1,784,736	2,760,000	357,532	1,940,472	3,168,672	213,129
11	853,552	1,797,696	2,760,000	389,788	1,891,872	3,179,520	267,477
12	791,336	1,636,128	2,760,000	405,048	2,006,376	3,569,280	206,010
13	90,776	534,672	2,760,000	57,960	458,148	2,020,800	66,003
14	983,640	1,771,344	2,760,000	397,684	2,194,260	3,210,624	228,669
15	782,040	1,630,944	2,760,000	295,064	1,386,408	3,229,632	161,910
16	727,440	1,760,544	2,760,000	313,348	1,532,628	3,382,944	196,224
17	689,472	1,699,344	2,760,000	341,124	1,730,652	3,306,528	196,455
18	689,584	1,674,504	2,760,000	347,648	1,722,732	3,137,568	210,042
19	692,328	1,671,192	2,760,000	335,468	1,679,016	3,344,640	193,746
20	841,960	1,629,648	2,760,000	346,612	1,761,768	3,123,264	211,659
21	939,064	1,282,464	2,760,000	424,088	2,218,356	3,148,032	237,279
22	690,928	1,657,800	2,760,000	343,980	1,789,788	3,229,440	245,868
23	708,400	1,680,408	2,760,000	332,248	1,730,856	3,380,256	213,171
24	727,440	1,636,560	2,760,000	342,412	1,805,436	2,978,400	216,447
25	780,640	1,624,608	2,760,000	340,704	1,693,740	2,807,712	202,041
26	737,352	1,514,664	2,760,000	321,076	1,586,652	3,379,104	169,197
27	745,360	1,488,096	2,760,000	379,344	2,044,140	3,367,008	247,149
28	740,096	1,483,992	2,760,000	407,932	2,128,656	3,480,000	252,378
29	498,624	1,261,368	2,040,000	332,892	1,641,744	3,450,816	212,184
30	514,696	1,300,896	2,040,000	331,016	1,858,968	3,556,992	217,455
31	518,896	1,320,984	2,040,000	328,720	1,839,600	3,350,208	217,602
Total	23,173,584	49,397,976	84,240,000	10,438,596	53,368,728	97,134,432	6,315,393